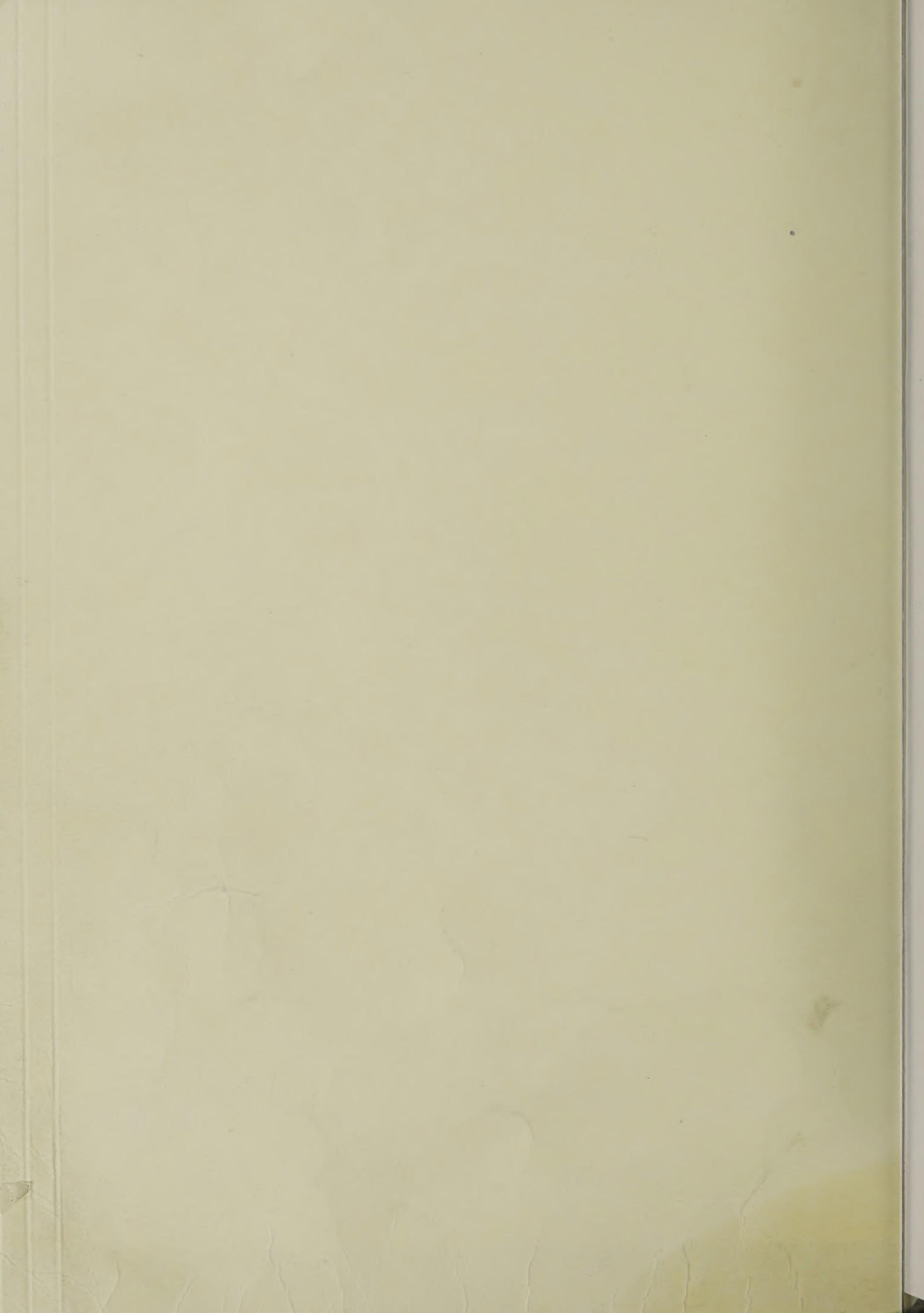


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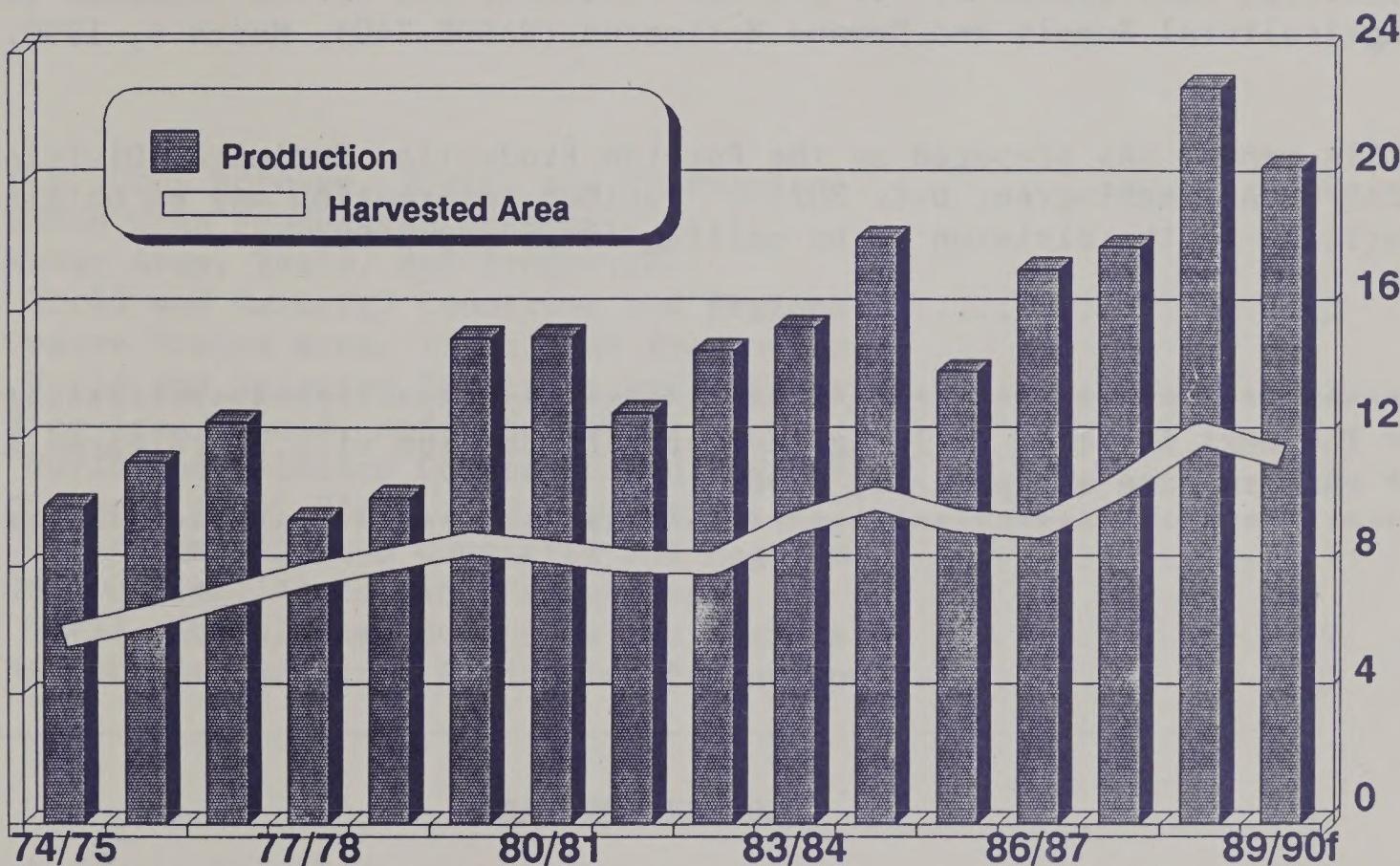
Foreign  
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Circular Series  
WAP 3 - 90  
MARCH 1990

# World Agricultural Production

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## Brazilian Soybeans Millions of Tons and Hectares



### Inside This Issue.....

- World Rapeseed Production
- World Livestock and Meat Production
- World Cocoa Production
- Brazilian Soybean Production  
and Field Trip Report

This report draws on information from USDA's global network of agricultural attaches and counselors, official statistics of foreign governments, other foreign source materials, and results of office analysis. Estimates of U.S. acreage, yield, and production are from USDA's Agricultural Statistics Board, except where noted. All numbers in this report are based on unrounded data and detail may not add to totals because of rounding. This report reflects official USDA estimates for grains, oilseeds, and cotton released in World Agricultural Supply and Demand Estimates (WASDE-240), March 9, 1990.

This report was prepared by the Foreign Production Estimates Division (FPED), FAS/USDA, Washington, D.C. 20250. Further information may be obtained by writing to the division or by calling (202) 382-8888.

\*\*\*\*\*  
\* The next issue of World Agricultural Production will be released at 3 p.m. \*  
\* eastern time on April 11, 1990. \*  
\*\*\*\*\*

CONVERSION TABLE

: Metric Tons to Bushels	= MT*36.7437	: Metric Tons to 480-lb. Bales
: -----		: -----
:	: Cotton	= MT*4.592917
: Wheat & Soybeans	= MT*39.36825	
: Corn, Sorghum, Rye	= MT*45.929625	
: Barley	= MT*68.894438	: Metric Tons to Hundredweight
: Oats		: -----
: -----		
: 1 hectare	= 2.471044 acres	: Rice
: 1 kilogram	= 2.204622 pounds	=MT*22.04622

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## PRODUCTION HIGHLIGHTS FOR 1989/90

**WHEAT:** World production for 1989/90 is estimated at a record 535.2 million metric tons, down 0.9 million or less than 1 percent from last month but up 7 percent from last year's harvest. Important changes from last month include the following:

- o Eastern Europe Production is estimated at 42.3 million tons, down 0.6 million or 1 percent from last month and down 5 percent from last year. The change from last month is due to lower estimated yield in the German Democratic Republic.
- o Argentina Production is estimated at 10.2 million tons, down 0.3 million or 3 percent from last month but up 21 percent from last year. The decrease is attributed to lower estimated harvested area. Adverse weather in key growing regions led to harvest losses.
- o Brazil Production is forecast at 5.5 million tons, up 0.2 million or 4 percent from last month but down 5 percent from last year. The increase is based on greater estimated harvested area.
- o Australia Production is estimated at 14.2 million tons, up 0.2 million or 1 percent from last month and up 1 percent from last year. Timely finishing rains pushed estimated yield above previously forecast levels.

**COARSE GRAINS:** World production for 1989/90 is estimated at 798.2 million tons, down 1.8 million or less than 1 percent from last month but up 10 percent from last year. Important changes from last month include the following:

- o Turkey Production is estimated at 7.6 million tons, down 1.5 million or 17 percent from last month and down 24 percent from last year. Commodities that contributed to the decline in this month's forecast include barley, down 1.0 million tons (17 percent from last month and 29 percent from last year) and corn, down 0.5 million tons (22 percent from last month and 18 percent from last year). Yields are estimated lower than previously forecast.
- o Brazil Production is estimated at 25.3 million tons, down 1.0 million or 4 percent from last month and down 5 percent from last year. This month's decrease is due to lower estimated corn area, which has been reduced to reflect poor weather and farmer response to financial constraints at planting.

- o Argentina Production is forecast at 8.6 million tons, down 0.5 million or 5 percent from last month but up 21 percent from last year. Both estimated corn area and yields have been reduced as a result of adverse weather in the key growing regions of Santa Fe and Cordoba provinces.
- o Indonesia Production is estimated at 4.8 million tons, down 0.4 million or 8 percent from last month and down 8 percent from last year. Corn area is estimated lower than previously forecast.
- o Eastern Europe Production is estimated at 66.5 million tons, up 0.8 million or 1 percent from last month and up 12 percent from last year. The higher forecast is due to greater estimated barley and rye production in East Germany and higher yields for Yugoslav barley and oats.
- o Mali Production is estimated at 1.6 million tons, up 0.2 million or 17 percent from last month but down 24 percent from last year's record harvest. The increase is attributed to higher estimated millet and corn yields.
- o Thailand Production is estimated at 4.3 million tons, up 0.2 million or 5 percent from last month but down 4 percent from last year. The rise is due to higher estimated corn yield.

**RICE (MILLED-BASIS):** World production for 1989/90 is estimated at a record 340.2 million tons, up 0.6 million or less than 1 percent from last month and up 3 percent from the 1988/89 crop. Foreign production in 1989/90 is projected at a record 335.3 million tons. U.S. output is projected at 4.9 million tons, unchanged from last month but down 6 percent from last season. Important changes from last month include the following:

- o Bangladesh Production is estimated at a record 17.7 million tons, up 0.7 million or 4 percent from last month and up 14 percent from last year. Recent field surveys indicated that a substantial Aman crop area increase occurred last summer, in addition to increased plantings of high yielding varieties.
- o Cambodia Production is estimated at 1.3 million tons, up 0.3 million or 24 percent from last month but down 11 percent from last year's revised estimate. The increase is due to higher estimated yield.

o Thailand

Production is estimated at 13.9 million tons, down 0.3 million or 2 percent from last month and down less than 1 percent from last year. Deteriorating crop conditions in the central plains region affected prospective second-crop yields more than previously expected.

o Brazil

Production is forecast at 6.4 million tons, down 0.2 million or 3 percent from last month and down 15 percent from last year. The decrease is based on a reduced area estimate, which was caused by low irrigation water levels in Rio Grande do Sul reservoirs, and on financial constraints faced by producers at the outset of the season.

OILSEEDS: Total world oilseeds production for the 1989/90 marketing year is pegged at a record 213.56 million tons. This month's forecast is down 0.1 million tons from last month but up 11.5 million tons or 6 percent from last year's output. U.S. production is estimated at 59.4 million, unchanged from last month. U.S. production is expected to be up 18 percent from last year. Foreign production is forecast at a record 154.1 million tons, down 0.1 million tons from last month but up 2.4 million tons or 2 percent from last year.

- \* Soybeans: World production for 1989/90 is forecast at a record 107.3 million tons, up 0.1 million from last month and up 12.3 million or 13 percent from last year. Significant changes from last month include:

o India

Production is estimated at 1.7 million tons, up 0.1 million or 6 percent from last month and up 13 percent from last year. Recently released official estimates indicated lower area and higher yields.

- \* Cottonseed: World production for 1989/90 is forecast at 31.1 million tons, up 0.3 million from last month but down 1.0 million or 3 percent from last year. This year's crop will be 2.8 million tons below the record 33.9 million tons produced in 1984/85. Significant changes from last month include:

o India

Production is estimated at a record 4.1 million tons, up 0.3 million or 8 percent from last month and up 14 percent from last year. Increased cotton lint yields in North India have boosted the cottonseed production outlook.

- \* Peanuts: World production for 1989/90 is forecast to be the second largest in history, at 22.1 million tons. Small, offsetting adjustments this month resulted in no change to the total estimate, but production is expected to be down 1.3 million or 6 percent from last year's record 23.4 million.

- \* **Sunflowerseed:** World production for 1989/90 is forecast at a record 21.8 million tons, down 0.3 million from last month but up 1.6 million or 8 percent from last year. Significant changes from last month include:
  - o **China** Production is estimated at 1.0 million tons, down 0.3 million or 23 percent from last month and down 17 percent from last year. A severe drought in northeast China lowered yields by 5 percent and reduced harvested area by 100,000 hectares. Sunflowerseed area has been gradually falling for several years due to continuing disease problems.
- \* **Rapeseed:** World production for 1989/90 is estimated at 21.6 million tons, the third largest on record but down for the second consecutive year. This month's estimate is down 0.1 million from last month and down 0.9 million or 4 percent from last year. Significant changes from last month include:
  - o **China** Production is estimated at 5.4 million tons, down 0.2 million or 3 percent from last month but up 8 percent from last year. According to the State Statistical Bureau, excessive rain during the harvest in late May and early June caused considerable damage to the crop.
- \* **Flaxseed:** World production for 1989/90 is estimated at 2.0 million tons, unchanged from last month but up 0.3 million or 15 percent from last year. The record crop of 3.0 million tons has not been seriously challenged since 1977/78, as world production has been trending downward.
- \* **Copra:** World production for 1989/90 is estimated at 4.6 million tons, down 0.1 million or 3 percent from last month but up 3 percent from last year. Copra production has ranged between 4.3 and 4.8 million tons for many years, the record being 5.3 million in 1985/86. Significant changes from last month include:
  - o **Indonesia** Production is estimated at 1.2 million tons, down 0.1 million or 7 percent from last month but up slightly from last year. The decline is primarily due to poor weather which reduced yields.
- \* **Palm Kernels:** World production for 1989/90 is forecast at a record 3.2 million tons, up 1 percent from last month and up 0.2 million or 7 percent from last year.
- \* **Palm Oil:** World production for 1989/90 is forecast at a record 10.2 million tons, up over 0.1 million tons from last month and up 0.7 million or 8 percent from last year. Significant changes from last month include:

o Indonesia

Production is estimated at 1.9 million tons or nearly 5 percent above last month's figure. Newly planted areas continue to come into production.

**COTTON:** World cotton production in 1989/90 is estimated at 80.1 million bales, up 0.7 million from last month but down 4.3 million bales or 5.1 percent from last year. Foreign production is estimated at 67.8 million bales, up 0.7 million from last month but 1.6 percent below 1988/89. U.S. production is estimated at 12.2 million bales, unchanged from last month. Important changes from a month ago include the following:

o Argentina

Production is expected to be a record in 1989/90 at 1.3 million bales, up 0.3 million or 30 percent from last month and up 45.1 percent from last year. The record output is due to increases in area and yield over last season. Last year's attractive cotton prices served as an incentive for farmers to increase the area planted to cotton. Dissatisfied with last year's soybean harvest, a number of farmers in the major cotton producing province of Chaco switched area from soybeans into cotton. An estimated 60 to 70 percent of the cotton crop was planted within the ideal planting window of September to October. During the season, weather conditions have been good to excellent, with ample moisture early in the growing season. Harvest will begin in earnest later this month and will continue until July.

o India

Production in 1989/90 is estimated at a record 9.4 million bales, up 0.4 million or 4 percent from last month and up 13.6 percent from last year. The increase from last month is attributed to higher than expected yields from the summer crop produced in the northern section of the country and the cotton crop currently being harvested from the central region. During the growing season, weather conditions were favorable with ample summer monsoons and low pest damage in both areas of India.

TABLE 1

## U.S. Crop Acreage, Yield, and Production 1/

COMMODITY	PLANTED AREA			HARVESTED AREA			YIELD			PRODUCTION				
	Prel.	Proj.	Prel.	Proj.	Prel.	Proj.	Prel.	1988/89	1988/89	Prel.	1988/89 Proj.	Prel.	1988/89	Feb.
	1987/88	1988/89	1989/90	1987/88	1988/89	1989/90	1987/88	1988/89	Feb.	Mar.	1987/88	1988/89	Feb.	Mar.
--Million Acres--														
All Wheat	65.8	65.5	76.6	55.9	53.2	62.1	37.7	34.1	32.8	32.8	2,108	1,812	2,036	2,036
Winter	48.8	48.8	55.1	39.3	39.8	41.5	39.8	39.2	35.1	35.1	1,565	1,562	1,454	1,454
Other	17.0	16.7	21.5	16.6	13.4	20.7	32.6	18.7	28.1	28.1	54.2	250	582	582
Rye	2.5	2.4	2.0	0.7	0.6	0.5	29.1	24.7	28.1	28.1	20	15	13	13
Soybeans	58.2	58.8	60.7	57.2	57.4	59.4	33.9	27.0	32.4	32.4	1,938	1,549	1,927	1,927
Corn	66.2	67.7	72.3	59.5	58.3	64.8	119.8	84.6	116.2	116.2	7,131	4,929	7,527	7,527
Sorghum	11.8	10.3	12.6	10.5	9.0	11.2	69.4	63.8	55.4	55.4	731	577	618	618
Barley	10.9	9.8	9.2	10.0	7.6	8.3	52.4	38.0	48.6	48.6	521	290	403	403
Oats	17.9	13.9	12.1	6.9	5.5	6.9	54.3	39.3	54.4	54.4	374	218	374	374
--Pounds per Acre--														
Rice	2.4	2.9	2.7	2.3	2.9	2.7	5,555	5,514	5,749	5,749	129.6	159.9	154.5	154.5
All Cotton	10.4	12.5	10.6	10.0	11.9	9.5	706	619	619	619	14.8	15.4	12.2	12.2

1/ Estimates from USDA Agricultural Statistics Board.

MARCH 1990

FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA

TABLE 2

## World Crop Production Summary

Commodity	World	Total Foreign	North America			Europe			Asia			South America			Selected Other			All Others	
			United States	Canada	Mexico	EC-12	Oth. W. Europe	Eastern Europe	USSR	China	India	Indonesia	Pakistan	Thailand	Argentina	Brazil	Australia	South Africa	Turkey
—Million Metric Tons—																			
Wheat																			
1987/88	501.7	444.4	57.4	26.0	3.7	71.4	4.0	39.9	83.3	85.8	44.3	0.0	12.0	0.0	8.8	6.1	12.4	3.1	13.0
1988/89 prel.	501.4	452.1	49.3	16.0	3.2	74.7	3.9	44.8	84.4	86.4	46.2	0.0	12.7	0.0	8.4	5.8	14.1	3.5	15.0
1989/90 proj.	536.2	480.8	55.4	24.4	3.9	79.1	4.3	43.0	90.5	91.0	54.0	0.0	14.4	0.0	10.5	5.3	14.0	2.0	12.0
February	535.2	479.8	55.4	24.4	3.9	78.8	4.3	42.3	90.5	91.0	54.0	0.0	14.4	0.0	10.2	5.5	14.2	2.0	12.0
March																			15.9
Coarse Grains																			
1987/88	792.1	575.1	217.0	25.5	14.5	82.4	10.8	62.8	113.7	95.8	23.8	4.8	2.2	2.9	13.1	25.5	7.2	7.9	9.2
1988/89 prel.	728.3	578.6	149.7	19.7	13.8	88.5	11.3	59.5	97.5	94.3	31.7	5.2	2.3	4.5	7.2	26.7	6.7	12.3	10.0
1989/90 proj.	800.0	578.6	221.4	23.5	14.5	81.4	12.3	65.8	107.0	91.3	31.2	5.2	2.6	4.1	9.1	26.3	7.2	8.3	9.1
February	798.2	576.7	221.4	23.5	14.5	81.5	12.3	66.5	107.0	91.3	31.2	4.8	2.6	4.3	8.6	25.3	7.1	8.3	7.6
March																			80.3
Rice (Milled)																			
1987/88	313.7	309.6	4.1	0.0	0.4	1.3	0.0	0.2	1.7	121.7	56.9	27.0	3.2	11.9	0.2	8.0	0.5	0.0	0.2
1988/89	330.1	324.9	5.2	0.0	0.3	1.3	0.0	0.2	1.9	118.4	70.7	27.5	3.2	13.9	0.2	7.5	0.6	0.0	0.2
1989/90	339.6	334.7	4.9	0.0	0.4	1.3	0.0	0.2	1.8	125.3	70.0	28.8	3.2	14.2	0.3	6.6	0.6	0.0	0.2
February	340.2	335.3	4.9	0.0	0.4	1.3	0.0	0.2	1.8	125.3	70.0	28.8	3.2	13.9	0.3	6.4	0.6	0.0	0.2
March																			23.1
Total Grains 1/																			
1987/88	1,607.6	1,329.1	278.5	51.5	18.6	155.1	14.8	102.9	198.7	303.4	124.9	31.8	17.5	14.9	22.1	39.6	20.1	11.0	22.3
1988/89 prel.	1,559.8	1,355.5	204.2	35.7	17.2	164.5	15.2	104.5	183.8	298.1	148.6	32.7	18.2	18.4	15.8	40.0	21.3	15.9	25.2
1989/90 proj.	1,675.8	1,394.1	281.8	47.8	18.7	161.8	16.6	109.0	199.0	307.6	155.2	34.0	20.2	18.3	19.9	38.2	21.8	10.3	21.2
February	1,673.6	1,391.8	281.8	47.8	18.7	161.6	16.6	109.1	199.1	307.6	155.2	33.6	20.2	18.1	19.1	37.2	22.0	10.3	19.7
March																			19.6
Oilseeds 2/																			
1987/88	208.9	147.9	61.0	5.9	1.2	12.4	0.5	5.3	11.8	33.7	13.9	1.7	3.3	0.6	14.0	19.7	0.9	1.0	20.2
1988/89 prel.	202.0	151.7	50.3	5.9	0.9	11.4	0.6	5.1	12.5	30.6	19.1	2.0	3.3	0.7	10.3	24.4	1.7	0.9	20.1
1989/90 proj.	213.7	154.2	59.4	4.9	1.3	10.6	0.7	5.8	13.5	29.7	18.2	1.9	3.3	0.8	15.7	22.2	0.9	0.9	21.7
February	213.6	154.1	59.4	4.9	1.3	10.6	0.7	5.8	13.5	29.2	18.6	1.9	3.3	0.8	15.7	22.1	0.9	0.9	21.6
March																			
Cotton																			
1987/88	81.1	66.3	14.8	0.0	1.0	1.2	0.0	0.1	11.5	19.5	7.4	0.0	6.7	0.1	1.3	3.5	1.3	0.4	2.5
1988/89 prel.	84.4	68.9	15.4	0.0	1.4	1.6	0.0	0.1	12.6	19.1	8.3	0.0	6.6	0.2	0.9	3.4	1.3	0.3	10.3
1989/90 proj.	79.3	67.1	12.2	0.0	0.8	1.4	0.0	0.1	12.2	18.0	9.0	0.0	6.7	0.1	1.0	3.5	1.5	0.4	9.8
February	80.1	67.8	12.2	0.0	0.8	1.4	0.0	0.1	12.2	18.0	9.4	0.0	6.7	0.1	1.3	3.5	1.5	0.4	2.7
March																			9.8

1/ Includes total of wheat, coarse grains, and rice (milled) shown above. Estimates of Soviet total grain production, including wheat, coarse grains, rice (rough), minor grains and pulses are 211.4 million tons in 1987/88, 195.1 million in 1988/89, and 211.1 million forecast in 1989/90.

2/ Totals for major regions and countries include the six major oilseeders shown elsewhere in this report, while world and total foreign also include copra and palm kernels for all countries.

Note: Entries of 0.0 indicate no reported or insignificant production.

TABLE 3  
**Wheat Area, Yield, and Production**  
**World and Selected Countries and Regions**

COUNTRY/REGION	AREA			YIELD				PRODUCTION			
	Prel. 1987/88	Proj. 1988/89	Proj. 1989/90	Prel. 1987/88	1988/89	1989/90 Proj. Feb.	Mar.	Prel. 1987/88	1988/89	1989/90 Proj. Feb.	Mar.
	<b>---Million Hectares---</b>			<b>---Metric Tons Per Hectare---</b>				<b>---Million Metric Tons---</b>			
World	219.9	218.0	225.5	2.28	2.30	2.37	2.37	501.7	501.4	536.2	535.2
United States	22.6	21.5	25.2	2.53	2.29	2.20	2.20	57.4	49.3	55.4	55.4
Total Foreign	197.2	196.5	200.4	2.25	2.30	2.40	2.39	444.4	452.1	480.8	479.8
Maj. Foreign Exporters	43.2	42.1	44.2	2.74	2.69	2.88	2.88	118.6	113.1	128.0	127.6
Argentina	4.8	4.7	5.5	1.84	1.79	1.88	1.87	8.8	8.4	10.5	10.2
Australia	9.1	8.9	8.9	1.36	1.58	1.57	1.59	12.4	14.1	14.0	14.2
Canada	13.5	13.0	13.6	1.93	1.23	1.79	1.79	26.0	16.0	24.4	24.4
EC-12	15.9	15.5	16.2	4.50	4.82	4.87	4.86	71.4	74.7	79.1	78.8
Major Importers	95.4	95.9	97.1	2.34	2.40	2.47	2.46	223.6	230.2	239.4	238.9
Brazil	3.5	3.5	3.3	1.76	1.68	1.71	1.67	6.1	5.8	5.3	5.5
China	28.8	28.8	29.8	2.98	3.00	3.05	3.05	85.8	86.4	91.0	91.0
Eastern Europe	10.5	10.7	10.7	3.79	4.17	4.02	3.96	39.9	44.8	43.0	42.3
Egypt	0.6	0.6	0.6	4.23	4.76	4.76	4.76	2.4	2.8	3.0	3.0
Other N. Africa 1/	5.1	4.0	4.9	1.01	1.26	1.13	1.13	5.2	5.0	5.6	5.6
Japan	0.3	0.3	0.3	3.19	3.62	3.61	3.47	0.9	1.0	1.0	1.0
USSR	46.7	48.1	47.5	1.78	1.76	1.91	1.91	83.3	84.4	90.5	90.5
Other Foreign	58.6	58.5	59.0	1.75	1.86	1.91	1.92	102.2	108.7	113.4	113.3
India	23.1	23.1	24.1	1.92	2.00	2.24	2.24	44.3	46.2	54.0	54.0
Iran	6.1	6.3	6.3	0.98	1.08	1.08	1.08	6.0	6.8	6.8	6.8
Mexico	0.9	0.8	1.0	4.11	4.00	4.11	4.11	3.7	3.2	3.9	3.9
Non-EC W. Europe	0.9	0.8	0.9	4.24	5.01	5.03	5.03	4.0	3.9	4.3	4.3
Pakistan	7.7	7.3	7.5	1.56	1.73	1.92	1.92	12.0	12.7	14.4	14.4
South Africa	1.7	2.0	1.8	1.81	1.78	1.09	1.09	3.1	3.5	2.0	2.0
Turkey	8.7	8.8	8.7	1.49	1.71	1.38	1.38	13.0	15.0	12.0	12.0
Others	9.4	9.5	8.8	1.72	1.83	1.75	1.81	16.1	17.5	16.1	15.9

1/ Algeria, Libya, Morocco, and Tunisia.

**TABLE 4**  
**Coarse Grains Area, Yield, and Production**  
**World and Selected Countries and Regions**

COUNTRY/REGION	AREA			YIELD				PRODUCTION			
	Prel. 1987/88	Proj. 1988/89	Proj. 1989/90	Prel. 1987/88	1988/89	1989/90 Proj. Feb. Mar.	Prel. 1987/88	1988/89	1989/90 Proj. Feb. Mar.		
<b>TOTAL COARSE GRAINS</b>	<b>---Million Hectares---</b>			<b>---Metric Tons Per Hectare---</b>				<b>---Million Metric Tons---</b>			
World	323.6	324.8	323.1	2.45	2.24	2.47	2.47	792.1	728.3	800.0	798.2
United States	35.4	32.8	37.1	6.12	4.56	5.97	5.97	217.0	149.7	221.4	221.4
Total Foreign	288.2	292.0	286.1	2.00	1.98	2.01	2.02	575.1	578.6	578.6	576.7
Maj. Foreign Exporters	23.5	20.9	21.5	2.41	2.41	2.41	2.41	56.6	50.3	52.2	51.9
Argentina	4.4	3.0	3.1	2.99	2.36	2.84	2.78	13.1	7.2	9.1	8.6
Australia	4.6	4.4	4.2	1.55	1.52	1.69	1.71	7.2	6.7	7.2	7.1
Canada	8.0	7.1	8.3	3.21	2.76	2.83	2.83	25.5	19.7	23.5	23.5
South Africa	4.6	4.6	4.3	1.73	2.71	1.93	1.93	7.9	12.3	8.3	8.3
Thailand	2.0	1.8	1.6	1.50	2.50	2.57	2.70	2.9	4.5	4.1	4.3
Major Importers	107.8	106.7	104.3	2.65	2.55	2.71	2.72	285.7	272.1	282.4	283.2
Eastern Europe	17.9	18.3	18.5	3.50	3.24	3.55	3.60	62.8	59.5	65.8	66.5
EC-12	19.0	19.2	18.6	4.34	4.60	4.37	4.37	82.4	88.5	81.4	81.5
Other W. Europe	3.1	3.2	3.1	3.50	3.52	3.97	3.97	10.8	11.3	12.3	12.3
Mexico	7.8	7.6	7.7	1.87	1.81	1.88	1.88	14.5	13.8	14.5	14.5
USSR	59.5	57.8	55.9	1.91	1.69	1.91	1.91	113.7	97.5	107.0	107.0
Other Major Import. 2/	0.5	0.5	0.4	3.14	3.40	3.36	3.35	1.4	1.5	1.5	1.5
Other Foreign	156.9	164.4	160.3	1.48	1.56	1.51	1.51	232.8	256.1	244.0	241.6
Brazil	13.6	13.4	13.3	1.87	2.00	1.88	1.91	25.5	26.7	26.3	25.3
China	28.7	27.3	27.9	3.33	3.46	3.27	3.27	95.8	94.3	91.3	91.3
India	36.6	39.1	38.6	0.65	0.81	0.81	0.81	23.8	31.7	31.2	31.2
Indonesia	2.7	2.9	2.6	1.79	1.82	1.82	1.85	4.8	5.2	5.2	4.8
Nigeria	9.4	10.1	9.9	0.72	0.84	0.83	0.83	6.8	8.5	8.2	8.2
Philippines	3.7	3.8	3.6	1.18	1.21	1.21	1.21	4.4	4.5	4.4	4.4
Turkey	4.3	4.4	4.2	2.15	2.29	2.08	1.78	9.2	10.0	9.1	7.6
Others	57.9	63.6	60.1	1.08	1.18	1.14	1.14	62.6	75.1	68.3	68.8
<b>BARLEY</b>											
World	79.6	76.4	73.5	2.27	2.18	2.30	2.30	180.5	166.3	169.4	168.9
United States	4.0	3.1	3.4	2.82	2.04	2.61	2.61	11.4	6.3	8.8	8.8
Total Foreign	75.6	73.3	70.1	2.24	2.18	2.28	2.28	169.2	160.0	160.6	160.1
Australia	2.4	2.2	2.3	1.46	1.47	1.74	1.77	3.5	3.3	4.0	4.1
Canada	5.0	4.2	4.7	2.79	2.46	2.48	2.48	14.0	10.2	11.7	11.7
China	3.4	2.7	2.8	1.78	2.31	2.09	2.09	6.0	6.3	5.7	5.7
Eastern Europe	4.3	4.4	4.6	3.79	3.72	3.84	4.00	16.3	16.3	17.6	18.4
EC-12	12.2	12.2	11.8	3.84	4.13	3.93	3.90	46.8	50.3	46.4	46.0
Other W. Europe	1.6	1.7	1.5	3.13	3.27	3.74	3.74	5.2	5.6	5.7	5.7
Turkey	3.2	3.3	3.2	1.88	2.12	1.82	1.56	6.0	7.0	6.0	5.0
USSR	30.7	29.7	27.5	1.91	1.50	1.80	1.80	58.4	44.5	49.5	49.5
Others	12.8	12.9	11.7	1.02	1.28	1.18	1.20	13.0	16.5	14.1	14.1

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FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA

TABLE 4 (Continued)  
**Coarse Grains Area, Yield, and Production**  
**World and Selected Countries and Regions**

COUNTRY/REGION	AREA			YIELD				PRODUCTION			
	Prel. 1987/88	Proj. 1988/89	Proj. 1989/90	Prel. 1987/88	1988/89	1989/90 Proj. Feb.	Mar.	Prel. 1987/88	1988/89	1989/90 Proj. Feb.	Mar.
<b>CORN</b>	<b>---Million Hectares---</b>			<b>---Metric Tons Per Hectare---</b>				<b>---Million Metric Tons---</b>			
World	125.4	124.8	127.0	3.57	3.19	3.60	3.61	447.9	398.7	460.1	458.5
United States	24.1	23.6	26.2	7.52	5.31	7.29	7.29	181.1	125.2	191.2	191.2
Total Foreign	101.3	101.3	100.7	2.63	2.70	2.64	2.65	266.8	273.5	268.9	267.3
Maj. Foreign Exporters	8.0	7.1	6.6	2.35	2.95	2.58	2.58	18.8	20.9	17.3	17.0
Argentina	2.6	1.7	1.7	3.46	2.94	3.33	3.24	9.0	5.0	6.0	5.5
South Africa	3.7	3.8	3.5	1.93	3.10	2.14	2.14	7.1	11.7	7.5	7.5
Thailand	1.8	1.6	1.4	1.56	2.63	2.71	2.86	2.7	4.2	3.8	4.0
Major Importers	22.0	22.3	22.1	3.73	3.73	3.81	3.83	82.1	83.0	84.0	84.4
Eastern Europe	7.4	7.4	7.4	3.94	3.50	4.02	4.03	29.2	26.0	29.8	29.8
EC-12	3.7	4.1	3.8	6.99	7.00	6.76	6.85	25.9	28.5	25.8	26.3
Other W. Europe	0.2	0.2	0.2	8.00	8.55	8.77	8.77	1.8	1.9	1.9	1.9
Mexico	6.0	6.0	6.0	1.65	1.68	1.67	1.67	9.9	10.1	10.0	10.0
USSR	4.6	4.4	4.5	3.24	3.62	3.56	3.56	14.8	16.0	16.0	16.0
Other Maj. Import. 2/	0.1	0.1	0.1	4.17	4.19	4.17	4.17	0.5	0.4	0.5	0.5
Other Foreign	71.2	71.9	72.1	2.33	2.36	2.30	2.30	165.9	169.6	167.7	165.9
Brazil	13.2	12.9	12.8	1.88	2.02	1.89	1.91	24.8	26.1	25.5	24.5
Canada	1.0	1.0	1.0	7.02	5.47	6.31	6.31	7.0	5.4	6.4	6.4
China	20.2	19.7	20.3	3.92	3.93	3.72	3.72	79.2	77.4	75.5	75.5
Egypt	0.8	0.8	0.8	4.97	5.21	5.33	5.33	4.1	4.3	4.4	4.4
India	5.6	5.9	6.0	1.03	1.40	1.33	1.33	5.7	8.3	8.0	8.0
Indonesia	2.7	2.9	2.6	1.79	1.82	1.82	1.85	4.8	5.2	5.2	4.8
Philippines	3.7	3.8	3.6	1.18	1.21	1.21	1.21	4.4	4.5	4.4	4.4
Zimbabwe	1.2	1.2	1.2	1.80	1.56	1.63	1.63	2.2	1.9	2.0	2.0
Others	22.8	23.7	23.7	1.48	1.54	1.54	1.51	33.7	36.6	36.3	35.9
<b>SORGHUM</b>											
World	42.2	43.0	43.3	1.33	1.29	1.30	1.30	56.1	55.3	56.4	56.4
United States	4.3	3.7	4.5	4.36	4.00	3.48	3.48	18.6	14.6	15.7	15.7
Total Foreign	38.0	39.3	38.7	0.99	1.03	1.05	1.05	37.6	40.6	40.7	40.7
Argentina	1.0	0.7	0.7	3.00	2.00	3.00	3.00	3.0	1.4	2.1	2.1
Australia	0.8	0.7	0.6	2.19	1.65	1.91	2.00	1.7	1.2	1.3	1.2
China	1.9	1.8	1.8	2.91	3.14	2.94	2.94	5.4	5.6	5.4	5.4
India	16.0	14.8	15.5	0.59	0.71	0.74	0.74	9.5	10.5	11.5	11.5
Mexico	1.4	1.3	1.3	2.91	2.49	2.94	2.94	4.0	3.1	3.9	3.9
Nigeria	4.3	4.4	4.4	0.67	0.80	0.80	0.80	2.9	3.5	3.5	3.5
South Africa	0.3	0.3	0.3	1.52	1.58	1.65	1.65	0.5	0.4	0.5	0.5
Sudan	3.0	5.3	4.1	0.43	0.83	0.61	0.61	1.3	4.4	2.5	2.5
Thailand	0.2	0.2	0.2	1.03	1.39	1.49	1.49	0.2	0.3	0.3	0.3
Others	9.1	9.9	9.8	0.99	1.04	1.01	1.00	9.1	10.3	9.8	9.9

FOOTNOTES AT END OF TABLE

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MARCH 1990

FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA

TABLE 4 (Continued)  
**Coarse Grains Area, Yield, and Production**  
**World and Selected Countries and Regions**

COUNTRY/REGION	AREA			YIELD				PRODUCTION			
	Prel. 1987/88	Proj. 1988/89	Proj. 1989/90	Prel. 1987/88	1988/89	1989/90 Proj. Feb. Mar.	Prel. 1987/88	1988/89	1989/90 Proj. Feb. Mar.		
<b>OATS</b>	<b>---Million Hectares---</b>			<b>---Metric Tons Per Hectare---</b>				<b>---Million Metric Tons---</b>			
World	23.6	22.1	22.6	1.84	1.70	1.85	1.84	43.3	37.6	41.7	41.6
United States	2.8	2.2	2.8	1.95	1.41	1.95	1.95	5.4	3.2	5.4	5.4
Total Foreign	20.8	19.9	19.8	1.82	1.73	1.83	1.82	37.9	34.4	36.3	36.2
USSR	11.8	10.9	10.6	1.57	1.40	1.56	1.56	18.5	15.3	16.5	16.5
Maj. Foreign Exporters	3.5	3.5	3.7	1.96	1.91	1.96	1.96	6.8	6.7	7.3	7.3
Argentina	0.5	0.4	0.5	1.30	1.10	1.39	1.39	0.7	0.4	0.6	0.6
Australia	1.3	1.3	1.2	1.32	1.49	1.43	1.44	1.7	2.0	1.7	1.7
Canada	1.3	1.4	1.7	2.37	2.18	2.08	2.08	3.0	3.0	3.5	3.5
Sweden	0.4	0.4	0.4	3.63	3.14	3.56	3.56	1.4	1.3	1.5	1.5
Other Foreign	5.5	5.4	5.5	2.27	2.28	2.27	2.25	12.5	12.4	12.5	12.4
China	0.6	0.6	0.6	1.10	1.19	1.15	1.15	0.6	0.7	0.6	0.6
Eastern Europe	1.4	1.4	1.4	2.79	2.63	2.74	2.67	4.0	3.7	3.9	3.8
East Germany	0.1	0.1	0.1	4.28	3.43	3.94	3.33	0.6	0.5	0.7	0.5
Poland	0.9	0.9	0.9	2.84	2.62	2.70	2.70	2.4	2.2	2.3	2.3
EC-12	1.8	1.8	1.7	3.02	3.12	2.77	2.74	5.3	5.5	4.8	4.8
France	0.3	0.3	0.3	3.91	3.86	3.90	3.90	1.0	1.0	1.0	1.0
West Germany	0.6	0.6	0.5	4.30	4.23	3.75	3.78	2.4	2.4	2.0	1.9
Finland	0.4	0.4	0.4	2.21	2.21	3.14	3.14	0.8	0.9	1.4	1.4
Norway	0.1	0.1	0.1	3.87	2.98	3.68	3.68	0.5	0.4	0.5	0.5
Others	1.3	1.2	1.3	1.06	1.09	1.10	1.11	1.3	1.3	1.4	1.4
<b>RYE</b>											
World	15.6	15.9	16.7	2.12	2.08	2.28	2.29	33.0	33.0	38.2	38.2
United States	0.3	0.2	0.2	1.82	1.55	1.76	1.76	0.5	0.4	0.3	0.3
Total Foreign	15.3	15.6	16.5	2.13	2.08	2.29	2.30	32.5	32.6	37.8	37.9
USSR	9.7	10.1	10.6	1.86	1.83	2.03	2.03	18.1	18.5	21.5	21.5
Maj. Foreign Exporter											
Canada	0.3	0.3	0.5	1.58	1.04	1.72	1.72	0.5	0.3	0.8	0.8
Other Foreign											
Eastern Europe	3.7	3.9	3.9	2.72	2.58	2.82	2.85	10.0	10.0	11.0	11.1
East Germany	0.7	0.6	0.6	3.49	2.94	3.13	3.34	2.3	1.8	2.0	2.1
Poland	2.6	2.9	2.9	2.57	2.51	2.80	2.80	6.8	7.2	8.1	8.1
Czechoslovakia	0.1	0.2	0.2	3.49	3.42	3.42	3.42	0.5	0.5	0.5	0.5
EC-12	1.0	0.9	1.0	2.93	3.05	3.29	3.30	3.0	2.9	3.2	3.2
Denmark	0.1	0.1	0.1	3.77	4.52	4.85	4.83	0.5	0.4	0.5	0.5
West Germany	0.4	0.4	0.4	3.89	4.19	4.68	4.69	1.6	1.6	1.9	1.8
Others	0.6	0.5	0.6	1.77	2.06	2.30	2.30	1.0	1.0	1.3	1.3

1/ Total of barley, corn, sorghum, oats, and rye shown below plus millet and mixed grain.

2/ Japan, Republic of Korea, and Taiwan.

TABLE 5

**Rice Area, Yield, and Production  
World and Selected Countries and Regions**

COUNTRY/REGION	AREA		YIELD		PRODUCTION (Rough Basis)			MILLING RATE			PRODUCTION (Milled Basis)			
	Proj. 1987/88	Proj. 1988/89	1989/90		Proj. 1989/90 Feb.	Prel. 1987/88	Prel. 1988/89 Feb.	1989/90 Proj. Mar.	Prel. 1987/88	Prel. 1988/89 Feb.	1989/90 Proj. Mar.	Prel. 1987/88	Prel. 1988/89 Feb.	
			Proj. 1989/90	Feb.										
<b>—Million Hectares—</b>			<b>Metric Tons Per Hectare—</b>			<b>—Million Metric Tons—</b>			<b>In Percent—</b>			<b>—Million Metric Tons—</b>		
World	141.4	145.5	145.9	3.3	3.4	3.4	3.5	462.8	487.5	503.0	503.9	67.8	67.7	67.5
United States	0.9	1.2	1.1	6.2	6.2	6.4	6.4	5.9	7.3	7.0	7.0	69.9	72.1	70.0
Total Foreign	140.4	144.3	144.8	3.3	3.3	3.4	3.4	456.9	480.3	496.0	496.9	67.8	67.6	67.5
Maj. Foreign Exporters	15.7	16.8	17.3	2.2	2.3	2.3	2.3	34.3	38.4	39.8	39.3	64.1	64.1	64.0
Burma	4.5	4.5	4.7	2.5	2.8	2.9	2.9	11.4	12.5	13.5	13.5	60.0	60.0	60.0
Pakistan	2.0	2.0	2.2	2.5	2.4	2.2	2.2	4.9	4.8	4.8	4.8	66.7	66.7	66.7
Thailand	9.2	10.3	10.3	2.0	2.1	2.1	2.0	18.0	21.1	21.5	21.0	66.0	66.0	66.0
Major Importers	12.9	13.0	13.3	4.2	4.3	4.3	4.3	54.0	55.8	57.6	57.6	66.2	66.2	66.1
EC-12	0.3	0.3	0.3	5.8	5.6	5.9	6.0	1.9	2.0	2.0	2.0	67.3	67.3	67.0
Indonesia	9.8	9.8	10.1	4.2	4.3	4.4	4.4	41.5	42.3	44.3	44.3	65.0	65.0	65.0
Nigeria	0.6	0.6	0.6	1.3	1.3	1.3	1.3	0.8	0.8	0.8	0.8	66.5	66.5	66.5
Republic of Korea	1.3	1.3	1.3	6.0	6.6	6.5	6.5	7.6	8.4	8.2	8.2	72.3	72.3	72.0
Other Maj. Import. 1/	0.9	1.0	1.0	2.3	2.3	2.3	2.3	2.1	2.3	2.4	2.4	65.5	65.4	65.4
Other Foreign	111.8	114.4	114.3	3.3	3.4	3.4	3.5	368.6	386.0	398.6	400.0	68.3	68.2	68.0
Australia	0.1	0.1	0.1	7.1	7.8	7.7	7.7	0.8	0.8	0.9	0.9	71.5	71.5	71.5
Bangladesh	10.3	10.2	10.7	2.2	2.3	2.4	2.5	23.1	23.3	25.5	26.6	66.7	66.7	66.7
Brazil	6.0	5.3	4.6	2.0	2.1	1.9	2.0	11.8	11.0	9.7	9.4	68.0	68.0	68.0
China	32.1	31.9	32.3	5.4	5.3	5.5	5.5	173.9	169.1	179.0	179.0	70.0	70.0	70.0
India	38.8	41.9	41.5	2.2	2.5	2.5	2.5	85.3	106.0	105.0	105.0	66.7	66.7	66.7
Japan	2.1	2.1	2.1	6.2	5.8	6.2	6.2	13.3	12.4	13.0	12.9	72.8	72.8	72.8
Philippines	3.3	3.4	3.4	2.6	2.7	2.7	2.7	8.7	9.2	9.4	9.4	65.0	65.0	65.0
USSR	0.7	0.7	0.7	4.1	4.3	4.2	4.2	2.7	2.9	2.7	2.7	65.0	65.0	65.0
Vietnam	5.6	5.8	5.9	2.7	2.9	3.1	3.1	15.3	16.8	18.0	18.0	65.0	65.0	65.0
Others	12.8	13.1	13.0	2.6	2.6	2.7	2.8	33.8	34.5	35.5	36.2	66.2	66.2	66.2

1/ Hong Kong, Iran, Iraq, Ivory Coast, and Saudi Arabia.

MARCH 1990

FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA

**TABLE 6**  
**Oilseeds Area, Yield, and Production**  
**World and Selected Countries and Regions**

COUNTRY/REGION	AREA			YIELD				PRODUCTION			
	Prel. 1987/88	Proj. 1988/89	1989/90	Prel. 1987/88	1988/89	1989/90 Proj. Feb.	Mar.	Prel. 1987/88	1988/89	1989/90 Proj. Feb.	Mar.
<b><u>SOYBEANS</u></b>	<b>---Million Hectares---</b>			<b>---Metric Tons Per Hectare---</b>				<b>---Million Metric Tons---</b>			
World	54.02	55.54	57.16	1.92	1.71	1.87	1.88	103.67	94.93	107.15	107.28
United States	23.14	23.22	24.03	2.28	1.82	2.18	2.18	52.75	42.15	52.44	52.44
Total Foreign	30.88	32.32	33.12	1.65	1.63	1.65	1.66	50.93	52.78	54.71	54.84
Maj. Foreign Exporters	14.78	16.17	16.30	1.88	1.82	1.90	1.90	27.72	29.40	31.00	31.00
Argentina	4.26	4.00	5.00	2.28	1.60	2.10	2.10	9.70	6.40	10.50	10.50
Brazil	10.52	12.17	11.30	1.71	1.89	1.81	1.81	18.02	23.00	20.50	20.50
Other Foreign	16.10	16.15	16.82	1.44	1.45	1.41	1.42	23.21	23.38	23.71	23.84
Canada	0.46	0.53	0.54	2.75	2.16	2.26	2.26	1.27	1.15	1.22	1.22
China	8.41	8.12	8.00	1.48	1.43	1.37	1.35	12.47	11.65	10.80	10.80
Eastern Europe	0.53	0.56	0.54	1.31	1.20	1.44	1.44	0.69	0.67	0.78	0.78
EC-12	0.56	0.52	0.61	3.16	3.21	2.91	2.91	1.78	1.66	1.78	1.78
India	1.54	1.66	1.90	0.58	0.91	0.80	0.89	0.90	1.50	1.60	1.70
Indonesia	0.95	1.18	1.00	1.00	1.02	1.05	1.05	0.95	1.20	1.05	1.05
Paraguay	0.62	0.70	0.76	1.79	2.01	1.84	1.84	1.10	1.40	1.40	1.40
USSR	0.78	0.76	0.83	0.91	1.16	1.11	1.11	0.71	0.88	0.92	0.92
Others	2.24	2.14	2.65	1.49	1.53	1.58	1.59	3.34	3.28	4.16	4.19
<b><u>COTTONSEED</u></b>											
World	31.52	33.78	32.92	0.99	0.95	0.94	0.95	31.28	32.05	30.84	31.13
United States	4.06	4.84	3.84	1.29	1.14	1.13	1.13	5.23	5.50	4.32	4.32
Total Foreign	27.46	28.94	29.08	0.95	0.92	0.91	0.92	26.05	26.55	26.52	26.80
China	4.84	5.53	5.36	1.49	1.27	1.25	1.25	7.22	7.05	6.70	6.70
India	6.46	7.30	7.40	0.50	0.49	0.51	0.55	3.20	3.60	3.81	4.09
Pakistan	2.57	2.50	2.71	1.15	1.16	1.08	1.08	2.95	2.90	2.92	2.92
USSR	3.53	3.43	3.33	1.27	1.42	1.46	1.46	4.49	4.87	4.85	4.85
Others	10.06	10.18	10.28	0.82	0.80	0.80	0.80	8.20	8.13	8.24	8.24
<b><u>PEANUTS</u></b>											
World	18.23	19.78	19.36	1.11	1.18	1.15	1.14	20.32	23.37	22.08	22.08
United States	0.63	0.66	0.66	2.62	2.74	2.76	2.76	1.64	1.81	1.83	1.83
Total Foreign	17.60	19.12	18.70	1.06	1.13	1.09	1.08	18.68	21.56	20.25	20.25
Argentina	0.19	0.15	0.16	2.34	1.62	2.31	2.31	0.45	0.24	0.37	0.37
China	3.02	2.91	2.96	2.04	1.95	1.83	1.79	6.17	5.69	5.30	5.30
India	6.84	8.43	8.10	0.77	1.07	0.99	0.99	5.30	9.00	8.00	8.00
Senegal	0.85	0.90	0.79	1.10	0.76	0.93	0.93	0.93	0.69	0.74	0.74
South Africa	0.15	0.19	0.19	1.33	1.24	1.24	1.24	0.20	0.23	0.23	0.23
Sudan	0.58	0.58	0.55	0.76	0.78	0.73	0.73	0.44	0.45	0.40	0.40
Others	5.97	5.96	5.96	0.87	0.88	0.88	0.88	5.19	5.26	5.21	5.21

CONTINUED

**TABLE 6 (Continued)**  
**Oilseeds Area, Yield, and Production**  
**World and Selected Countries and Regions**

COUNTRY/REGION	AREA			YIELD				PRODUCTION			
	Prel. 1987/88	Proj. 1988/89	1989/90	Prel. 1987/88	1988/89	Feb.	Mar.	Prel. 1987/88	1988/89	Feb.	Mar.
<b>SUNFLOWERSEED</b>	<b>---Million Hectares---</b>			<b>---Metric Tons Per Hectare---</b>				<b>---Million Metric Tons---</b>			
World	15.52	14.96	15.85	1.35	1.35	1.36	1.38	20.92	20.19	22.16	21.84
United States	0.72	0.78	0.74	1.65	1.05	1.10	1.10	1.18	0.81	0.81	0.81
Total Foreign	14.81	14.18	15.12	1.33	1.37	1.37	1.39	19.74	19.38	21.34	21.03
Argentina	2.06	2.20	2.90	1.36	1.36	1.38	1.38	2.80	3.00	4.00	4.00
China	0.89	0.83	0.73	1.40	1.42	1.37	1.34	1.24	1.18	1.28	0.98
EC-12	2.30	2.12	1.99	1.81	1.87	1.64	1.64	4.16	3.97	3.27	3.27
East Europe	1.38	1.31	1.33	1.74	1.62	1.84	1.84	2.40	2.12	2.45	2.45
USSR	4.16	4.28	4.40	1.46	1.44	1.59	1.59	6.08	6.16	7.00	7.00
Others	4.03	3.44	3.77	0.76	0.86	0.84	0.89	3.06	2.95	3.36	3.34
<b>RAPESEED</b>											
World	16.80	17.88	16.99	1.40	1.26	1.28	1.27	23.44	22.51	21.70	21.59
Total Foreign	16.80	17.88	16.99	1.40	1.26	1.28	1.27	23.44	22.51	21.70	21.59
Canada	2.67	3.67	2.91	1.44	1.17	1.05	1.05	3.85	4.31	3.06	3.06
China	5.27	4.94	4.99	1.25	1.02	1.13	1.09	6.61	5.04	5.60	5.44
EC-12	1.86	1.84	1.63	3.20	2.81	3.08	3.08	5.95	5.18	5.01	5.01
East Europe	0.92	0.88	0.99	2.35	2.49	2.49	2.49	2.17	2.19	2.47	2.47
India	4.62	4.87	4.80	0.75	0.86	0.79	0.79	3.46	4.20	3.80	3.80
Others	1.46	1.69	1.67	0.97	0.94	1.06	1.08	1.41	1.59	1.77	1.81
<b>FLAXSEED</b>											
World	3.99	3.71	3.97	0.57	0.44	0.47	0.48	2.27	1.62	1.92	1.92
United States	0.19	0.09	0.07	1.01	0.45	0.47	0.47	0.19	0.04	0.03	0.03
Total Foreign	3.80	3.61	3.89	0.55	0.44	0.47	0.48	2.08	1.58	1.88	1.88
Argentina	0.66	0.56	0.60	0.82	0.74	0.82	0.82	0.54	0.41	0.49	0.49
Canada	0.59	0.50	0.64	1.23	0.74	0.83	0.83	0.73	0.37	0.53	0.53
India	1.15	1.18	1.20	0.34	0.30	0.30	0.33	0.39	0.35	0.40	0.40
USSR	1.07	1.04	1.10	0.21	0.21	0.20	0.20	0.23	0.22	0.23	0.23
Others	0.33	0.33	0.35	0.59	0.66	0.67	0.67	0.20	0.22	0.24	0.24
<b>MAJOR OILSEEDS</b>	<b>140.07</b>	<b>145.64</b>	<b>146.25</b>	<b>1.44</b>	<b>1.34</b>	<b>1.40</b>	<b>1.41</b>	<b>201.90</b>	<b>194.68</b>	<b>205.85</b>	<b>205.83</b>
United States	28.73	29.58	29.35	2.12	1.70	2.03	2.03	60.99	50.31	59.44	59.44
Total Foreign	111.34	116.06	116.90	1.27	1.24	1.25	1.25	140.91	144.37	146.41	146.40
<b>COPRA</b>	--	--	--	--	--	--	--	4.32	4.43	4.69	4.57
<b>PALM KERNEL</b>	--	--	--	--	--	--	--	2.69	2.94	3.11	3.15
<b>TOTAL OILSEEDS</b>	--	--	--	--	--	--	--	<b>208.91</b>	<b>202.04</b>	<b>213.66</b>	<b>213.56</b>
<b>PALM OIL 1/</b>	--	--	--	--	--	--	--	8.39	9.47	10.04	10.19

1/ Not included in total oilseeds.

**TABLE 7**  
**Cotton Area, Yield, and Production**  
**World and Selected Countries and Regions**

COUNTRY/REGION	AREA			YIELD				PRODUCTION			
	Prel.	Proj.	1987/88 1988/89 1989/90	Prel.	Proj.	1987/88 1988/89 Feb. Mar.	Prel.	1989/90 Proj.	1987/88 1988/89 Feb. Mar.		
	<b>---Million Hectares---</b>			<b>---Kilograms Per Hectare---</b>				<b>---Million 480-Pound Bales---</b>			
World	31.1	34.0	32.8	568	541	526	531	81.1	84.4	79.3	80.1
United States	4.1	4.8	3.8	791	694	694	694	14.8	15.4	12.2	12.2
Total Foreign	27.1	29.1	29.0	534	515	504	510	66.3	68.9	67.1	67.8
Maj. Foreign Exporters	12.9	13.5	13.4	765	750	716	717	45.2	46.4	44.0	44.0
Australia	0.2	0.2	0.2	1149	1538	1306	1451	1.3	1.3	1.5	1.5
Central America 1/	0.1	0.1	0.1	814	885	890	890	0.4	0.4	0.4	0.4
China	4.8	5.5	5.4	876	751	731	731	19.5	19.1	18.0	18.0
Egypt	0.4	0.4	0.4	845	718	626	626	1.6	1.4	1.2	1.2
Mexico	0.2	0.3	0.2	956	1178	920	885	1.0	1.4	0.8	0.8
Pakistan	2.6	2.5	2.7	572	570	539	539	6.7	6.6	6.7	6.7
Sudan	0.3	0.3	0.3	404	437	396	396	0.6	0.7	0.6	0.6
Turkey	0.6	0.7	0.7	916	919	807	807	2.5	3.0	2.7	2.7
USSR	3.5	3.4	3.3	709	801	797	797	11.5	12.6	12.2	12.2
Major Importers 2/	0.3	0.4	0.4	828	817	797	830	1.2	1.6	1.4	1.5
Other Foreign	13.9	15.2	15.2	313	299	310	320	19.9	20.9	21.7	22.4
Argentina	0.5	0.5	0.6	547	389	389	505	1.3	0.9	1.0	1.3
Brazil	2.2	2.4	2.4	355	311	324	324	3.5	3.4	3.5	3.5
India	6.5	7.3	7.4	248	247	265	277	7.4	8.3	9.0	9.4
Syria	0.1	0.2	0.2	751	672	844	844	0.4	0.5	0.6	0.6
Others	4.6	4.9	4.7	346	349	347	347	7.3	7.8	7.5	7.5

1/ Nicaragua, Guatemala, El Salvador, Honduras, and Costa Rica.

2/ Western Europe, Eastern Europe, Japan, Hong Kong, Republic of Korea, and Taiwan.

TABLE 8

The table below presents a 8-year record of the difference between the March projections and the final estimates. Using world wheat production as an example, changes between March projections and the final estimates have averaged 3.4 million tons (0.7 percent) and ranged from -8.0 to 6.9 million tons. The March projection has been below the final 5 times and above the final 3 times.

## RELIABILITY OF PRODUCTION PROJECTIONS

COMMODITY AND REGION	PROJECTION AND FINAL ESTIMATES, 1981/82 - 1988/89 1/					
	Difference		Lowest	Highest	Below Final	Above Final
	Average	Average	Difference			
<i>WHEAT</i>	Percent	<i>---Million Metric Tons---</i>			Number of Years 2/	
World	0.7	3.4	-8.0	6.9	5	3
U.S.	0.1	0.0	-0.1	0.1	3	1
Foreign	0.7	3.4	-8.0	6.9	5	3
<i>COARSE GRAINS 3/</i>						
World	0.7	5.3	-10.9	4.1	5	3
U.S.	0.1	0.2	-0.2	1.3	4	1
Foreign	1.0	5.5	-10.9	4.2	5	3
<i>RICE (Milled)</i>						
World	1.7	5.1	-10.0	2.3	7	1
U.S.	0.8	0.0	-0.1	0.1	2	1
Foreign	1.7	5.1	-9.9	2.3	7	1
<i>SOYBEANS</i>						
World	1.7	1.5	-2.2	1.4	5	3
U.S.	1.4	0.7	-1.1	1.8	3	4
Foreign	2.6	1.1	-2.2	0.5	7	1
<i>COTTON</i>		<i>---Million 480-lb. Bales---</i>				
World	1.2	1.0	-2.9	3.0	4	3
U.S.	0.8	0.1	-0.1	0.3	2	5
Foreign	1.5	1.0	-3.2	2.9	4	4
<i>UNITED STATES</i>		<i>-----Million Bushels-----</i>				
<i>CORN</i>	0.1	6	-8	38	1	1
<i>SORGHUM</i>	0.1	1	0	4	0	2
<i>BARLEY</i>	0.5	3	-3	11	4	1
<i>OATS</i>	0.1	0	-2	0	2	0

1/ The final estimate for 1981/82-1987/88 is defined as the November estimate following the marketing year and for 1988/89 last month's estimate.

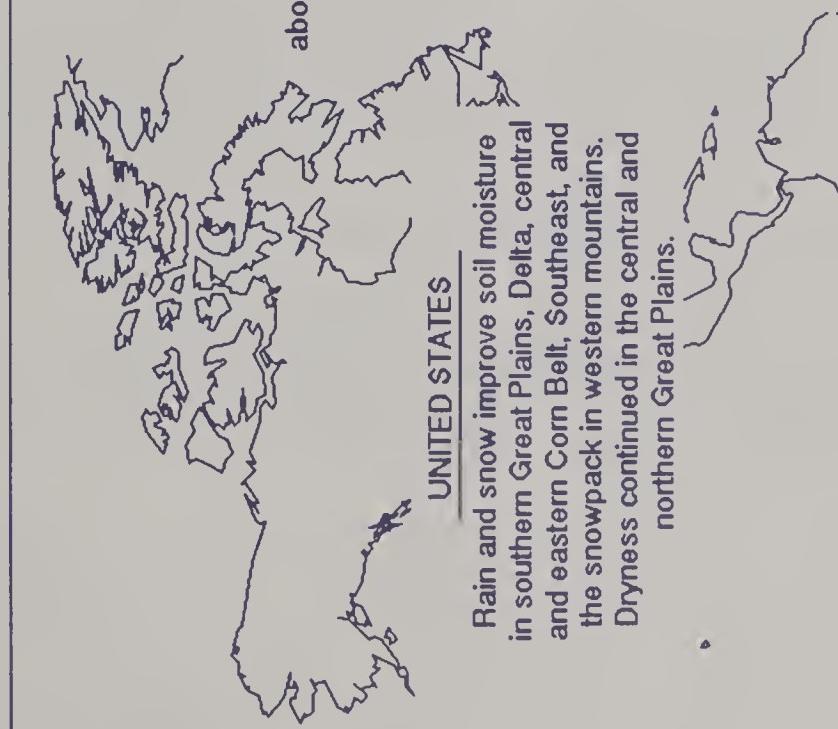
2/ May not total eight if projection was the same as the final.

3/ Includes corn, sorghum, barley, oats, rye, millet, and mixed grain.

# WORLD AGRICULTURAL WEATHER HIGHLIGHTS

**MARCH 9, 1990**

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY



## EUROPE

A series of storms move across northern Europe, bringing high winds, widespread rain, and property damage, especially to the northwest. In the south, abnormal dryness continues in Italy. Persistent above normal temperatures accelerate vegetative development of winter grains in the west and south.



## USSR

Continued unseasonably mild weather melts protective snow cover but diminishes the potential for significant winterkill. Winter grains are dormant to semi-dormant.



## EASTERN ASIA

Heavy rain causes localized flooding and saturated soils across the southeast. Widespread rain and snow bring soil moisture to favorable pre-season levels in the North China Plain. Early rice planting begins in the extreme south.



## NORTHWESTERN AFRICA

Persistent dryness stresses winter grains approaching reproduction. Soil moisture reserves are unfavorably low.



## SOUTH ASIA

Unseasonable rain across Pakistan and northern India increases irrigation reserves. Locally excessive rain, however, in early March causes flooding and damage to immature wheat. Rain in the east since mid-February benefits immature rice. Generally dry, warm weather helps India's maturing cotton.

## SOUTH AMERICA

In Argentina, periodic showers and mild weather improve growing conditions during February. Recent heat and dryness persist in northern cotton areas. Early summer crop harvesting begins. In south-central Brazil, moisture is generally adequate for flowering-filling soybeans in the south, but February dryness in the west hampers late development.



## SOUTHEAST ASIA

Frequent showers in southern Indonesia maintain favorable moisture reserves but cause local flooding. Unseasonable rain falls from eastern Thailand to northern Vietnam. Rainfall continues to be erratic over the Philippines.



## AUSTRALIA

Recent heavy rain helps alleviate moisture stress for sugarcane in the northeast. Abnormal dryness continues summer sorghum planting delays in central Queensland. Cotton and corn are nearing maturation across the east.



(More details are available in the Weekly Weather and Crop Bulletin. Subscription information may be obtained by calling (202) 447-7917.)

## WEATHER BRIEFS

### MILD WEATHER CONTINUES IN THE WESTERN USSR

Unseasonably warm weather continued over the Soviet Union's major winter wheat region. Temperatures were above normal for the last 8 weeks. The unseasonably warm weather has kept the snow line much farther north than normal for this time of year. This has left much of the winter grains vulnerable to extreme cold, should temperatures plunge. However, so far this season, winterkill has been below normal. Not only have average daily temperatures in the Ukraine been above normal for the last few weeks, but daily minimum temperatures have been above freezing. Precipitation for this season has been slightly below normal in Moldavia, western and south central Ukraine, and the lower Volga Valley.

### RAIN BENEFITS AUSTRALIAN SUGARCANE

Precipitation during February into early March was much above normal in northern and eastern Queensland and southern and coastal New South Wales. Much of this precipitation was caused by tropical cyclones and their remnants. The major sugarcane growing areas of eastern Queensland benefited the most as this area was quite dry. The sugarcane is in its vegetative stage and should benefit greatly from this moisture. Inland crops of southern Queensland also received beneficial rain late in this period. But precipitation still was light and below normal in northern inland New South Wales.

### SEVERE STORMS HIT WESTERN EUROPE, SOUTH STILL DRY

Severe storms since late January have brought high winds and above-normal precipitation to western and northern Europe. These storms caused major transportation and infrastructure damage to the United Kingdom and northern and central Europe. Winter crops were not damaged and, if anything, they benefited from the above-normal moisture. Temperatures through most of Europe have averaged above normal. Southern Europe has been very dry. Spain is above normal for precipitation this winter season because December precipitation was so much above normal. Italy is very dry for the second straight winter.

### NORTHERN AFRICA VERY DRY

Dry conditions continued for another month in Morocco, Algeria, and Tunisia. Winter grains are nearing the reproductive stage, and moisture is needed very soon. This region received light rain in early March, but that was too little to turn around very poor crop conditions.

## PRODUCTION BRIEFS

### CHILE: MEDITERRANEAN FRUIT FLY OUTBREAK UNDER CONTROL

On January 16, 1990, the U.S. agricultural attache in Santiago was informed by Servicio Agricola Y Ganadero, the USDA/APHIS counterpart in the Chilean Ministry of Agriculture, that three male Mediterranean fruit flies (*Ceratitis Capitata W.*) were discovered in separate traps near the Los Andes border truck station, the main transit crossing with Argentina. The Chilean Government immediately established a quarantine prohibiting transport of all fruit out of the zone which encompasses 1,900 hectares in the province of Los Andes. Aerial spraying commenced January 19, 1990, and will be followed by chemical treatment of the soil. Barriers were set up and manned by personnel authorized to enforce the quarantine. Fruit can be transported out of the zone only with special authorization of the Ministry of Agriculture, and only after the fruit has been fumigated and/or undergone cold treatment. The Ministry of Agriculture currently estimates that the eradication program will cost U.S. \$800,000 to \$1 million. To date, a total of eight male med flies have been trapped, all far from commercial orchards and packing houses. The last med fly outbreak in Chile occurred 8 to 10 years ago. No disruption of exports is expected since most of the fruit from the quarantined area is destined for the domestic market. Approximately 15 percent of Chile's total fruit exports--primarily stone fruits and table grapes--come from this zone.

### CHILE: RASPBERRY PRODUCTION

Over the past several years, Chile's fruit sector has undergone tremendous growth. Although the most notable gains have occurred for deciduous fruits and table grapes, specialty items, such as raspberries, show great promise. Raspberry plantings have increased steadily during the last few years as Chilean producers reaped high economic returns from export sales and easily recouped their investment after the second year of production. Production areas span the country from the Valparaiso region, north of Santiago, to the Los Lagos region in the south. The main Chilean varieties are Heritage, Glen Globe, Neeker, Willamette, and Mikel. The harvest season varies from region to region, but supplies are available from November through early May. One potential constraint to future growth in the raspberry industry is the limited availability of air cargo space during the November-January period when raspberries compete with other high-priced fruits and vegetables. Another important constraint is the shortage of qualified labor.

#### RASPBERRIES: AREA AND PRODUCTION

	<u>Area Planted (Hectares)</u>	<u>Production (Metric Tons)</u>
1987/88	1,150	3,200
1988/89	1,570	4,870
1989/90 1/	1,790	8,500

1/ Preliminary

#### SPAIN: TREE NUT PRODUCTION UPDATE

Spain's 1989/90 almond crop is estimated at a record 90,000 tons (shelled basis), unchanged from the September estimate. Reportedly, nut quality is good, with average to above-average kernel sizes. In contrast, Spain's 1989/90 filbert crop is expected to total only 23,000 tons (in-shell basis), 30 percent below the record 33,000 tons originally forecast last September but still 28 percent above last year's off-year harvest. The downward revision reflects larger than anticipated drought and flood losses.

#### TURKEY: TREE NUT PRODUCTION UPDATE

Late season assessments indicate that Turkey's 1989/90 almond crop will total a record 15,000 tons (shelled basis)--up from 13,000 tons last year--with excellent growing conditions offsetting a minimal decline in bearing tree numbers. However, despite extremely favorable weather conditions, it appears that the 1989/90 filbert crop will be closer to 460,000 tons (in-shell basis), rather than the 480,000 tons forecast in September 1989. If the 1989/90 crop is finalized at 460,000 tons, it would be an all-time high, exceeding the 1988/89 record of 420,000 tons by 10 percent.

#### FRANCE: WALNUT PRODUCTION UPDATE

The 1989/90 estimate for France's walnut crop has been revised upward to 26,200 tons (in-shell basis). This represents an increase of 6 percent over the preliminary forecast released in November 1989, and a 22-percent gain over the 1988/89 harvest. The projected increase reflects larger than anticipated crops in the two primary growing areas located in southwestern and southeastern France. Production in the southwest is now estimated at 13,100 tons, up 1,000 tons from last season. Output in the southeastern region is expected to total 10,800 tons, including 7,000 tons that qualify for the lucrative "Grenoble Walnut" designation of origin.

#### ITALY: TREE NUT PRODUCTION UPDATE

Italy's 1989/90 almond and pistachio crops will be smaller than the preliminary forecasts reported last fall. Almond production was originally overestimated and has now been lowered 10 percent--to 18,000 tons. Because of extended drought conditions in Sicily, the on-year pistachio crop is expected to total only 3,300 tons, 6 percent below the original estimate of 3,500 tons. Preliminary estimates for the 1989/90 filbert and walnut crops remain unchanged at 120,000 and 18,000 tons, respectively.

#### CHINA: WALNUT PRODUCTION UPDATE

The early season forecast for walnut production in China during the 1989/90 season remains unchanged at 151,000 tons, down 15 percent from the record 177,100 tons harvested in 1988/89. Under ideal conditions, production potential for the 1990/91 season is projected at 195-200 thousand tons. This presupposes good weather conditions, sufficient soil moisture, an on-year in the production cycle, large numbers of trees reaching bearing age, and higher yields from maturing trees.

#### TAIWAN: TABLE GRAPE PRODUCTION INCREASING

Taiwan's 1989 table grape crop is currently estimated at a record 80,300 tons, 12 percent greater than the previous high of 71,908 harvested last season. Vineyards were first introduced into Taiwan in 1955. Production is concentrated in the central prefectures. The leading table varieties include Kyoho, Niagara, Italy IP65, and Hinrod Seedless. By utilizing recently developed grafting techniques and chemical treatments, the Kyoho variety can now be harvested 2-3 times within one year. Historical area and production data are as follows in hectares and metric tons:

#### Grapes: Area and Production

	Harvested Area	Total Grape Production	Table Use
1979	2,218	43,448	40,554
1980	2,667	49,932	45,178
1981	3,448	68,818	59,332
1982	3,630	54,737	47,278
1983	3,899	84,613	72,605
1984	4,590	70,798	52,455
1985	4,837	85,587	59,617
1986	5,023	69,407	38,437
1987	5,113	66,109	35,447
1988	4,574	88,148	71,908
1989 1/	4,604	98,500	80,300

1/ Preliminary

#### AUSTRALIA: SULTANA FORECAST REDUCED

The U.S. agricultural counselor in Canberra reports that the Australian Bureau of Agricultural and Resource Economics has reduced the preliminary 1989/90 sultana (raisin) forecast from 85,000 tons to 73,000 tons due to extensive fruit wilt caused by unseasonably dry weather. Victoria, which annually accounts for about 75 percent of Australia's total sultana crop, experienced its driest January in 50 years. The situation was exacerbated by strong winds and persistently high temperatures ranging from 95-115 degrees Fahrenheit.

ARGENTINA: WEATHER DAMAGE TO DECIDUOUS FRUITS AND GRAPES

A severe hailstorm on February 12 damaged fruit orchards in the Rio Negro Valley, Argentina's most important apple and pear producing region. Heavy rains, winds and hail lasted approximately 6 hours causing extensive fruit drop. Early trade assessments place losses at 20-30 percent of production. Heavy rains in Mendoza the same day damaged pome and stone fruits, as well as table grapes. A rainstorm in San Juan Province on February 13 caused severe damage to vineyards. Argentine crop estimates as of January 11, 1990 were as follows: Apples--1,050,000 tons; pears--230,000 tons; apricots--15,500 tons; peaches/nectarines--265,000 tons; and table grapes--143,000 tons.

SPAIN: ALMOND BLOOM PROGRESSING SATISFACTORILY

Based on recent travel through some of Spain's almond producing regions, the U.S. agricultural counselor reports that the almond bloom is progressing satisfactorily. Above average temperatures in some of the interior regions have accelerated blossoming by about 15 days making the crops in those areas vulnerable to frost damage. In parts of the Levant, the Comuna (i.e. Unselected Valencia) crop has already reached the fruit stage with new almond sizes presently ranging from 1/2 to 2/3 of an inch. Barring a cold snap, 1990/91 production is projected at 90-100,000 tons (shelled basis).

MEXICO: 1990/91 COTTON PRODUCTION LIKELY REDUCED

The U.S. agricultural counselor in Mexico City reports that the cotton crop is likely to be below earlier expectations. The reduced prospects are due to low irrigation water levels and a shift in production policies from export cash crops to food and import substitution crops. In early January 1990, the Government of Mexico announced that production policy would target food crops--rice, wheat, corn, and edible beans. These four crops would be given priority for both production and finance assistance.

Cotton production in northwest Mexico is determined primarily by irrigation water availability. Irrigation water levels are reported to be adequate in the state of Sinaloa. However, cotton producers in Sonora have already been informed that there will be no reservoir irrigation water available for the 1990 crop. Thus, without substantially above normal rainfall, cotton production will be below potential.

### VENEZUELA: NEW DAIRY POLICY ADOPTED

Venezuela adopted a new dairy policy following a year of deliberations according to the U.S. agricultural trade officer in Caracas. The principal objective of the new policy is to satisfy demand for milk while promoting the consumption of pasteurized fresh milk rather than powdered milk. The new policy sets a minimum price for milk that meets minimum quality standards. It also provides for bonuses to farmers who achieve even higher quality standards and/or who follow certain approved management practices such as chilling the milk within 2 hours of milking and using artificial insemination. A farmer who earns all incentive bonuses would be paid nearly one-third more per unit of milk than before. Processors are encouraged to set retail prices for milk based on demand for fluid milk but the policy contains provisions for subsidized sales to low income groups. Producers are said to be happy with the new policy that encourages both consumption and increased productivity.

### BRAZIL: FIRST 1990/91 COFFEE CROP FORECAST

Brazil's 1990/91 coffee harvest is forecast at 37 million 60-kilogram bags, up 11 million or 42 percent more than the 1989/90 crop, according to the U.S. agricultural officer in Rio de Janeiro. This is the first forecast and is based on field observations taken earlier this year in the states of Parana, Sao Paulo, and Minas Gerais. After a highly satisfactory bloom period, especially in the states of Parana and Sao Paulo, it was apparent that growers have been encouraged to improve plantation management. This was reflected in very good vegetative growth and coffee cherry development. In the state of Parana, the size of the coffee crop was already well defined. In western and southern Minas Gerais a large portion of the coffee trees are currently in the "off year" production cycle. However, new coffee trees, planted three and four years ago, are coming into production, partially offsetting the off-year short reduced yield factor in these areas.

### WORLD: SUGAR PRODUCTION DOWN

World 1989/90 centrifugal sugar production is estimated at 105.2 million tons (raw basis), 500,000 tons less than forecast in November 1989. This revision is based on only a partial resurvey of world production, with no new information for most of the producing countries. Among the major changes, since the November report, have been a 500,000 ton drops in both Cuba and Thailand to 7.5 million and 3.5 million tons, respectively. The Soviet Union's sugar crop estimate was revised upward 560,000 tons to 9.56 million and Mexico's was reduced 350,000 tons to 3.15 million as reported here last month.

## SOVIET UNION: FARM PRODUCTION TARGETS ANNOUNCED FOR 1990

According to the U.S. agricultural counselor in Moscow, The Soviet Union has recently published agricultural production targets for 1990 and plan fulfillment results for 1989 (see the following table). With the exception of grains, most of the targets seem reasonably attainable. Soviet grain yields would have to rise to 2.03 tons per hectare from the record 1.88 tons harvested last year. Intensive technology practices (IT) are to be employed on 50 million hectares; IT was used on 38.7 million hectares in 1988. The Soviet report describes other economic, managerial, and scientific initiatives that have been developed since 1985 in order to ensure adequate food supplies. These initiatives have been aimed at eliminating the "command and administer" system of management and encouraging greater flexibility in planning and more individual initiative. These new initiatives, most notably leasing, joint ventures, and economic accountability, have so far met with limited success. In contrast to previous years, the plan does not include procurement targets.

FARM PRODUCTION AND 1990 PLAN  
(million tons)

COMMODITY	1989		1990
	Plan	Actual	Plan
Grain	241.0	211.1	236.0
Potatoes	88.1	72.0	87.7
Sugar Beets	87.3	97.5	88.0
Sunflower	6.5	7.0	6.6
Cotton	NA	8.6	NA
Fruit & Berries	NA	10.4	12.0
Grapes	NA	7.1	6.9
Vegetables	33.7	33.5	37.1
Meat	19.6	20.0	20.4
Milk	108.2	108.1	100.0
Wool (1000 tons)	473.0	474.0	475.0
Eggs (billion)	83.0	84.6	85.4

## CHINA: 1990 GRAIN PRODUCTION TARGET ANNOUNCED

The Chinese Ministry of Agriculture has set the grain (which includes soybeans, tuber crops and pulses under the Chinese definition of grain) production target for 1990 at 412 million tons. The government has taken many steps to help increase the production of grains this year. These include increasing the supply of input materials, encouraging greater agricultural investment, expanding planted and irrigated area, and using more hybrid varieties of rice and corn. Although some farmers have complained that purchase prices for grains are too low compared to other crops, no price increases have been announced yet for the coming year. According to a Chinese State Statistical Bureau release, China's 1989 total grain production was a record 407.45 million tons, 13.37 million tons more than in 1988 but less than the target of 410 million tons. The record harvest was attributed to increased planted area and higher yields due to generally favorable weather.

#### PORUGAL: WINTER WHEAT CROP SEVERELY HURT

Incessant rains and flooding during November through December have caused irreversible damage to large areas of Portugal's 1990 winter wheat crop according to the U.S. agricultural attache in Lisbon. The key Alentejo region suffered the severest weather problems which either prevented or washed away much of the winter wheat plantings. As a result, the Grain Producer's Association requested emergency subsidies from the Government. The Government has decided to give special credits to growers. The spring weather and success of spring plantings will ultimately affect Portugal's wheat outcome for the year.

#### EC-12: WHEAT PRODUCERS PLANTING LOWER QUALITY VARIETIES

The trend toward planting more standard and feed quality wheats in Western Europe continues as a result of EC wheat price policies and declining profits from planting superior quality bread wheats. Farmers contend that the Common Agricultural Policy support mechanism does not provide adequate price premiums for superior quality wheat. Moreover, newer variety standard wheats have higher overall yields. France, the largest wheat producer in Western Europe, is planting more acreage to a variety called Thesee, a standard quality wheat not accepted by all French millers. In 1989 about 15 percent of wheat acreage was planted to Thesee; prospects for 1990 suggest as much as 25 percent may have been sown. Similar circumstances exist in the United Kingdom where about 42 percent of the 1989 wheat acreage was planted to bread wheats, while current indications suggest that as little as 25 percent of 1990 wheat acreage will be bread quality varieties.

#### WEST GERMANY: STRONG WINDS DAMAGE FORESTS

High winds throughout Europe during February have caused severe damage to Germany's coniferous forests. The wood volume currently on the ground is estimated at 18 million cubic meters (CUM). In an average year, Germany's annual cut is approximately 30 million CUM, of which 80-90 percent is softwoods. Large volumes of logs are being rapidly processed and recovery efforts are already under way to preempt bark beetle infestations. However, forestry experts believe it will take at least a year to fully absorb the remains of the blow-down. Pessimistic estimates indicate that up to 30 percent of the broken wood will be unsuitable for lumber. The short-run glut of logs has already reversed an upward trend in wood prices. This downward trend is expected to continue for the duration of the salvage operations, unless offset by increased demand from the booming construction and furniture industries.

### CANADA: FORESTRY SITUATION

Canadian production of major forest products is expected to decline from the 1989 level because of a predicted downturn in the U.S. and Canadian housing industries. It also appears likely that logging activities during the rest of the year will moderate if a strong Canadian dollar begins to reduce Canada's competitiveness in the U.S. and overseas markets. Roundwood production during 1990 is projected to decline for the third consecutive year. Total output is currently forecast at 190 million cubic meters (CUM) only slightly less than the 1989 timber cut, but 5 percent below the record 200 million CUM harvested in 1987. Canadian output of softwood lumber continues to decline. Mill output for 1990 is projected at 58 million CUM, potentially the lowest level during the past four years.

Moderate production increases are currently being forecast for most panel products which have a wider variety of end uses. Particleboard, waferboard and oriented strand board are Canada's most important non-ply building boards and the fastest growing sectors in the structural panel manufacturing industry.

#### PRODUCTION OF SELECTED FOREST PRODUCTS (1,000 Cubic Meters)

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1/</u>
Roundwood	195,000	192,000	190,000	
Softwood Logs	125,000	122,000	121,000	
Temperate Hardwood Logs	5,300	5,400	5,200	
Poles, Piles, Posts, Pitprops	2,350	2,300	2,300	
Softwood Lumber	59,624	58,312	58,000	
Temperate Hardwood Lumber	986	1,275	1,450	
Railroad Ties/Sleepers	400	380	360	
Softwood Veneer	580	600	650	
Temperate Hardwood Veneer	700	725	750	
Softwood Plywood	2,000	2,000	2,025	
Temperate Hardwood Plywood	162	150	140	
Hardboard	485	1,000	900	
Insulation Board	556	560	525	
Particleboard	2,872	3,000	3,100	

1/ Preliminary

TUNISIA: DATE PRODUCTION CONTINUES TO EXPAND

Date production in Tunisia for the 1989/90 season is forecast at a record 75,000 tons, up 15 percent from last season, due to favorable weather conditions and an increase in the number of bearing trees. Approximately 68 percent (51,000 tons) of the projected 1989/90 crop will be comprised of the Deglet Nour variety. Most of the remaining 24,000 tons will consist of the common date variety, Aligh, utilized for industrial processing of bakery and pastry products. The date industry is managed by the Groupement Interprofessionnel des Dattes (GID), a quasi government/private trade association. On-going GID efforts to expand production and improve product quality include technical and financial assistance designed to reduce the costs associated with pollination and plastic protection for fruit bunches, subsidies for replacing aging trees with young, more productive types, and supervision of the industry's 19 date conditioning facilities.

DATE PRODUCTION BY VARIETY  
(1,000 Metric Tons)

	1987/88	1988/89	1989/90 <u>1/</u>
Deglet Nour	35	45	51
Aligh	20	19	23
Other	1	1	1
Total	56	65	75

1/ Preliminary

## FEATURE COMMODITY ARTICLES

### WORLD RAPESEED PRODUCTION

World rapeseed production for 1989/90 is estimated at 21.6 million tons, down 0.9 million from last year and down 1.6 million from the record 1987/88 crop. Since 1979/80, rapeseed production has climbed from slightly under 6 percent of total world oilseeds output to an estimated 10 percent in 1989/90. The most dramatic growth has occurred in the historically large producing countries. In the European Community, production is up 412 percent since 1979/80, Eastern Europe is up 374 percent, India up 266 percent, and China up 226 percent. The Soviet Union has also become a significant rapeseed producer, climbing from 8,000 tons in 1979/80 to over 500,000 million in 1989/90. The USSR plans to challenge the major producers in the future. The above countries, plus Canada, produced 94 percent of the world's rapeseed in 1989/90.

In recent years, U.S. interest in rapeseed production has increased. While no official USDA data exist on planted area, industry estimates for 1989/90 range from 26,000 to 40,000 hectares of double-low rapeseed, plus an additional 4,000 to 8,000 hectares of industrial grade rapeseed. Research suggests that average winter rapeseed yields in the U.S. could reach yields obtained in the European Community and could nearly double Canadian yields. Double cropping rapeseed with soybeans is limited since many of the same diseases that affect rapeseed also impact soybeans. Rapeseed's greatest potential may be as a rotation crop with wheat (3 years wheat, 1 year rapeseed). There is some evidence that rapeseed rotation actually benefits wheat yields.

#### China

Rapeseed is a major oilseed crop in China, accounting for about 16 to 18 percent of total oilseed production. Rapeseed area and production rose steadily from 1970 to 1987, peaking at 5.3 million hectares and 6.6 million tons. Production fell in 1988/89 to 5.04 million tons because of frost damage in the Yangtze River Valley and spring drought in Anhui Province. The crop recovered somewhat in 1989/90 to an estimated 5.44 million tons, but again it was affected by poor weather, particularly by heavy rainfall during the harvest season. Warm temperatures and moderate rainfall gave the 1990 rapeseed crop a good start last fall, but there is some concern now that the crop was damaged by snow, sleet, and extremely cold weather ( -5 to -10 C.) in late January and early February of this year. The extent of the damage is not yet known. China's 1989/90 estimated rapeseed yield of 1.13 tons per hectare is lower than the world average but higher than the yields in India, Canada, or the USSR. Natural disasters, plant diseases, pests, insufficient inputs, and increased production of low-yielding, low-acid varieties all contribute to China's relatively low yield.

Rapeseed oil is the most popular variety of edible oil in central and southern China, and some high-quality rapeseed oil is exported. Rapeseed meal is mostly used for fertilizer because the high level of glucosinolates limits its use for hog and chicken feed. There is now more emphasis on growing low erucic acid/low glucosinolate rapeseed for the international market and feed industry. The area planted in low-acid varieties is only about 10 percent of total area, but the percentage is growing.

Production of rapeseed is concentrated in the Yangtze River Valley and southern China. Sichuan is the largest producer, with about 20 percent of the crop, followed by Anhui and Jiangsu provinces. Other major producing provinces are Zhejiang, Hubei, Henan, Guizhou, and Jiangxi. Almost all rapeseed in China is grown as a winter crop in a double-crop system. It competes mainly with winter wheat for arable land and agricultural resources. Farmers have been reluctant to increase sown area or invest heavily in rapeseed because the returns from winter wheat are higher and the risks are less. However, one of rapeseed's major advantages is that it has an earlier harvest date than wheat, which allows farmers more time to plant a second crop such as cotton or double rice. For 1990 the Chinese Government has called for expanding rapeseed area by 400,000 hectares and announced there will be an increase in the rapeseed procurement price to make it more competitive with winter wheat. The government also plans to increase its technical assistance to rapeseed farmers.

#### India

Rapeseed production during the 1989/90 growing season is expected to reach 3.8 million tons, only slightly reduced from the record 4.2-million-ton output achieved last year. Harvested area in 1989/90 is forecast at 4.8 million hectares, a decline of 2 percent from last year's record level. Rapeseed is grown during the winter months in India, from October to March, and is primarily a rainfed crop. Timely winter precipitation is essential to maintain normal yield potential. Planting conditions were unfavorably dry in 1989/90, with the primary growing regions receiving virtually no rainfall from October through mid-December for early crop establishment. Substantial showers did occur, however, during January and February, boosting the yield outlook prior to harvest in March.

The Indian rapeseed crop consists of several distinct species of the rapeseed and mustard family. The primary crop species are brown mustard, sarson, toria, and taramira. Nearly two-thirds of the planted area in India is devoted to brown mustard, due to its higher productivity and greater tolerance to pests, diseases, and moisture stress. Rapeseed is the second most important oilseed crop in India, following peanuts, and is grown primarily in a mixed-crop fashion with wheat on marginal lands. Low average yields for the Indian crop are a factor of limited irrigation and fertilizer usage. Rapeseed is considered a high-risk crop by farmers, compared to wheat, and thus receives much less investment and management. The rapeseed crop zone is concentrated in the northern Gangetic plains in the states of Uttar Pradesh, Rajasthan, Madhya Pradesh, Haryana, Punjab, Orissa, Gujarat, Bihar, and West Bengal.

Indian rapeseed possesses a sizable amount of erucic acid (from 38 to 57 percent), as well as linolenic acid (4.7 to 13 percent). Protein content normally ranges between 24 and 30 percent on the whole seed basis, and between 35-40 percent on the meal basis. The presence of toxic glucosinates in the mustard cake render it unsuitable for human consumption, and it is currently used for manure and cattle feed.

## Canada

Canadian rapeseed production during 1989/90 was 3.1 million tons, well below the average production of 3.7 million during the last 5 years. The 1990/91 crop may show a small rebound due to improved yields but area could drop further. Returns on grain crops are higher relative to those for rapeseed, leading a number of analysts to forecast little change in Canadian rapeseed production for 1990/91. Canadian planting intentions will be released later this month.

Canadian rapeseed is grown principally in the provinces of Saskatchewan, Alberta, and Manitoba, accounting for 98 percent of production. Although area has fluctuated between 2.7 and 3.7 million hectares during the last 5 years, about 3.0 million hectares on average were planted to rapeseed. During the 1989/90 season, planting conditions were favorable. However, severe heat during the critical pod-setting time last summer forced larger abandonment and reduced yields.

In recent months, discussion in Canada has focused around a proposal to set up a marketing board for rapeseed. To date, producers seem to be split down the middle on the issue. On the other hand, the Canadian Government has been trying to move toward a more flexible marketing system for grains in order to reduce their financial risk. In any event, rapeseed will continue to be the largest oilseed crop in Canada for the foreseeable future.

## The European Community

Rapeseed production by the European Community (EC) for 1989/90, pegged at 5.0 million tons, was down another 3 percent from the 1988/89 crop, the second consecutive drop in annual growth since 1983/84. EC output dropped as a result of a 12-percent overall decline in harvested area, as winter rapeseed producers anticipated unavoidable target price cuts for production above the Minimum Guaranteed Quantity (MGQ) levels. The subsequent total overall EC production for 1989/90 was 1.5 million tons above the MGQ and automatically triggered a target price reduction from 450.2 ECUs per metric ton, to an estimated 425 ECUs (the final target price was adjusted to 436.2, however, because last year's production was overestimated). This was a price increase for producers over last year and the year before. The initial target price has remained unchanged at 450.2, while EC output above the MGQ declined, triggering target price reductions in 1987/88 and 1988/89 to 405.2 and 415.8, respectively.

The four largest producers, France, West Germany, the United Kingdom, and Denmark, account for 98 percent of total EC output. Together, they produced an estimated 5.1 million tons in 1988/89 and 4.9 million this year. French rapeseed area fell by a whopping 29 percent in 1989/90; however, a return to more normal yields from the previous year -- up 11 percent -- helped bolster output to 1.8 million tons, a decline of 0.5 million or 21 percent. Winter rapeseed accounts for nearly all of French production, over half of which is grown in the region that expands across central France from Burgundy in the west to Lorraine to the east. The double-low varieties rose to 63 percent of the crop in 1989/90 and are expected to reach 90-95 percent next year.

The United Kingdom, which accounted for 19 percent of EC output, was the only other country among the top four to reduce rapeseed production during 1989/90. Rapeseed production fell by 70,000 tons to 969,000 tons, as harvested area and average yield dropped 7 percent and 2 percent, respectively. In addition to a reduction in planted area, yields suffered due to drought conditions that were compounded by the typical heavy clay soils. Over 90 percent of the rapeseed is grown as a winter crop, primarily in the eastern counties of Lincolnshire and Yorkshire, and in East Anglia. Double-low seed varieties accounted for 90-95 percent of the crop, but glucosinolate content was variable and ranged from 2 to 34 micromoles.

West German rapeseed production increased in 1989/90 by 19 percent over last year to a record 1.45 million tons. Harvested area was up 9 percent, and good growing conditions pushed yields up 10 percent to a record 3.47 tons per hectare -- second best to the Netherlands at 3.83 tons per hectare. Nearly all rapeseed is grown as a winter crop. Only 10,300 hectares of an estimated 0.4 million were spring rapeseed. The low-lying, northern plains states of Schleswig-Holstein and Niedersachsen produce 40 percent of the crop, with another 40 percent grown in the higher elevations of the southern states of Bayern (Bavaria) and Baden-Wurttemberg. The shift to 100 percent double-low rapeseed varieties was completed in 1988.

Rapeseed production in Denmark reached an all time high in 1989/90 of 0.7 million tons. Producers plant the majority of rapeseed as a spring crop and can therefore anticipate the overall level of expected EC production and the subsequent final target price. Since total EC production was expected to be down again in 1989/90, as indicated by winter plantings, Denmark increased area by 15 percent over 1988/89. Rapeseed is grown throughout Denmark, but total area is limited to an annual 230,000 - 250,000 hectares due to rotation requirements. Area sown in the fall has increased in recent years due to its profitability over spring rape. In 1989/90, excellent fall planting conditions encouraged producers to plant an estimated 80,000 hectares, up from 27,000 in 1988/89. Winter rape now accounts for 35 percent of the total crop. Double-low rapeseed varieties, which until recently were grown only during the summer, are now grown in the winter as well.

#### Eastern Europe

The countries of eastern Europe contribute about eleven percent to the world's production of rapeseed. Of eight countries in Eastern Europe, only six produce rapeseed in any considerable amount. They include Poland, with 60.8 percent of production in Eastern Europe, East Germany (15.4 percent), Czechoslovakia (14.5 percent), Hungary (3.8 percent), Yugoslavia (3.0 percent), and Romania (2.4 percent). The Eastern Europe rapeseed crop for 1989/90 is estimated at 2.0 million tons, up 12.6 percent from the 1988/89 crop year, and 18.5 percent from the average production amount for the previous five years. Harvested area in Eastern Europe increased 12.6 percent to 991,000 hectares in 1989/90, but average yield decreased 2.3 percent, from 2.21 to 2.16 tons per hectare.

Rapeseed production in Poland, Eastern Europe's largest rapeseed producer, is estimated at 1.5 million tons for 1989/90, a 25 percent increase in production over last year. Rapeseed is the principal oilseed grown in Poland, though small amounts of flaxseed and sunflowerseed are produced. Poland's rapeseed production is far above its crushing capacity of 750,000 tons, leaving a substantial quantity for export. Presently, there are no plans to increase rapeseed production until crushing capacity is increased through the construction of new plants (Poland has plans for three new plants with a total capacity of 450,000 tons of vegetable oil annually). The on-going decline in dairy output and consequent tight supply of butter, will place continued emphasis on future vegetable oil production.

Rapeseed is grown primarily in the southwest and west. Of the 1.2 million tons produced in 1988/89, 78 percent was of the low erucic acid variety, while 17 percent of the double-low type was grown. The double-low rapeseed area expanded significantly in 1989/90 (about 120 percent from the previous year). This variety is now grown in almost all western provinces. Area sown to double-low rapeseed is expected to increase in 1990/91.

#### USSR

Rapeseed production by the Soviet Union during 1989/90 reached a record 0.5 million tons, up 21 percent from last year. Harvested area actually dropped nearly 4.5 percent in 1989/90, reportedly due to poor management of harvesting equipment, but excellent growing conditions produced record yields, bolstering output.

Harvested rapeseed area and production has experienced robust growth in recent years, climbing from just 144,000 hectares in 1986/87 to 0.6 million in 1988/89. The Soviet's have ambitious plans to increase rapeseed output. The official plan called for production of 1.3 million tons in 1989/90, over double actual output, and is calling for 1.5 million in 1990/91. By the year 2000, 6.0 million tons is planned, from 6.0 million hectares. To accomplish this, rapeseed has been designated as a "targeted" oilseed and the Soviet government created a scientific-production association named "Rapeseed" to help conduct intensive research to improve agricultural practices and to raise yields. In addition, the Ministry of Grain Products, the primary mixed feed producer, is preparing 372 reception points (similar to county elevators) for handling rapeseed.

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**Table 9. Rapeseed Production (1,000 Metric Tons)**

	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
China	2,402	2,384	4,065	5,656	4,287	4,205	5,607	5,881	6,605	5,044	5,440
India	1,428	2,002	2,382	2,207	2,608	3,073	2,681	2,605	3,455	4,200	3,800
Canada	3,411	2,484	1,849	2,225	2,609	3,412	3,498	3,787	3,847	4,311	3,058
<i>European Community</i>	1,220	2,060	2,033	2,672	2,467	3,458	3,659	3,707	5,961	5,186	5,022
France	510	1,103	990	1,148	906	1,304	1,340	1,071	2,645	2,302	1,800
West Germany	321	377	363	535	599	662	803	969	1,265	1,216	1,452
United Kingdom	198	300	325	580	565	925	895	940	1,353	1,040	969
Denmark	150	225	290	335	309	474	544	618	556	504	695
Italy	2	2	2	0	1	5	13	44	68	56	39
Netherlands	18	29	37	33	38	38	31	20	31	24	23
Bel-Luxembourg	2	2	1	10	10	11	6	8	15	15	14
Norway	9	10	9	13	13	19	11	11	9	10	11
Spain	10	11	14	13	11	11	10	10	10	10	10
Ireland	0	1	2	5	9	9	6	16	9	9	9
<i>Eastern Europe</i>	659	1,281	1,135	1,097	1,345	1,789	1,985	2,280	2,172	2,193	2,469
Poland	233	572	495	434	554	911	1,073	1,298	1,192	1,200	1,500
East Germany	201	310	285	308	260	305	381	370	400	420	380
Czechoslovakia	80	214	200	178	314	300	285	306	337	380	359
Hungary	41	98	76	85	93	92	85	120	105	80	95
Romania	11	19	14	13	21	57	35	55	50	45	60
Yugoslavia	93	68	65	79	103	124	126	131	88	68	75
USSR	8	14	29	47	69	55	74	110	296	420	510
Sweden	264	285	282	320	318	327	320	321	250	249	370
Pakistan	247	252	238	246	217	234	250	217	204	249	260
Bangladesh	118	122	123	120	254	285	261	229	222	200	210
Finland	51	88	69	96	101	83	94	139	90	124	115
Austria	3	8	10	12	12	17	18	27	65	87	96
Australia	41	17	15	7	17	32	87	83	66	58	82
Chile	73	27	12	3	4	30	90	78	123	113	74
Switzerland	31	34	34	37	32	43	39	49	50	44	45
Ethiopia	21	22	22	21	24	15	22	22	15	20	20
Korea, Republic of	27	29	22	20	10	10	7	7	8	8	7
Japan	5	4	4	4	3	2	3	2	2	2	2
Morocco	0	0	0	4	4	5	1	1	1	1	2
Turkey	43	12	6	2	2	1	1	1	1	1	2
Colombia	0	0	0	0	0	0	0	0	2	1	1
Brazil	0	3	12	1	1	1	1	1	1	1	1
Taiwan	2	2	1	1	1	1	1	1	3	1	0
Argentina	23	5	5	0	0	0	0	0	0	0	0
Mexico	3	2	2	1	1	0	0	0	0	0	0
<i>World Total</i>	10,080	11,137	12,350	14,799	14,386	17,079	18,699	19,550	23,438	22,514	21,586

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**Table 10. Rapeseed Harvested Area (1,000 Hectares)**

	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
China	2,761	2,844	3,801	4,122	3,669	3,413	4,494	4,916	5,267	4,936	4,993
India	3,471	4,113	4,399	3,827	3,874	3,987	3,979	3,719	4,619	4,865	4,800
Canada	3,406	2,080	1,402	1,777	2,334	3,071	2,783	2,641	2,671	3,672	2,908
<i>European Community</i>											
France	512	759	927	1,037	1,126	1,189	1,278	1,276	1,868	1,848	1,632
West Germany	223	400	469	476	463	430	461	388	740	869	613
United Kingdom	74	92	125	174	222	269	266	308	423	385	419
Denmark	65	103	132	152	162	191	217	227	250	200	323
Italy	1	1	1	0	1	2	6	23	28	23	16
Spain	8	8	25	19	16	10	9	9	8	8	8
Norway	5	6	7	8	9	11	13	13	10	6	6
Netherlands	7	8	11	11	11	13	13	10	7	7	7
Bel-Luxembourg	2	2	1	1	5	4	5	2	3	5	5
Ireland	0	1	2	3	4	4	4	7	4	4	4
<i>Eastern Europe</i>											
Poland	431	633	597	593	611	806	907	956	924	880	991
East Germany	180	320	277	259	247	396	467	515	499	471	563
Czechoslovakia	113	125	121	124	134	145	145	148	145	148	148
Romania	55	91	95	97	118	113	117	121	128	130	133
Yugoslavia	8	14	13	14	24	24	50	59	62	60	63
Hungary	42	32	31	44	46	56	63	56	36	31	34
USSR	33	51	56	58	52	57	56	54	40	50	50
Pakistan	11	20	59	100	144	109	123	144	407	607	580
Bangladesh	409	417	386	385	313	347	351	310	269	334	335
Sweden	195	201	193	186	364	385	369	343	318	290	300
Finland	155	172	165	166	161	164	168	171	164	146	175
Australia	34	55	56	64	61	58	75	81	86	77	77
Ethiopia	42	24	16	12	18	30	74	69	58	54	56
Austria	52	53	53	51	54	40	45	45	40	45	45
Chile	50	24	24	10	3	4	19	55	47	60	61
Switzerland	12	13	13	13	13	14	14	16	17	17	17
Korea, Republic of	12	15	11	11	7	6	4	5	4	4	4
Morocco	0	0	0	0	1	1	1	1	1	1	2
Turkey	28	10	6	2	2	2	2	2	1	1	1
Japan	3	2	2	2	0	0	0	0	1	1	1
Colombia	0	0	0	0	15	1	1	1	1	1	1
Brazil	0	3	1	1	1	1	1	1	1	1	1
Taiwan	2	1	7	0	0	0	0	0	1	1	0
Argentina	30	7	7	0	0	0	0	0	0	0	0
Mexico	3	2	2	2	1	0	0	0	0	0	0
<i>World Total</i>	<i>11,621</i>	<i>11,452</i>	<i>12,125</i>	<i>12,361</i>	<i>12,767</i>	<i>13,651</i>	<i>14,716</i>	<i>14,749</i>	<i>16,799</i>	<i>17,884</i>	<i>16,990</i>

**Table 11. Rapeseed Yield (Metric Tons per Hectare)**

	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
<i>European Community</i>											
Netherlands	1.84	2.16	1.85	1.98	2.05	2.43	2.39	2.49	2.56	2.52	2.66
West Germany	2.57	3.63	3.36	3.00	2.92	2.92	3.10	3.33	3.43	3.10	3.83
Denmark	2.53	2.73	2.36	2.83	2.58	2.61	3.02	3.15	2.96	3.16	3.47
United Kingdom	2.31	2.18	2.20	2.20	1.91	2.48	2.51	2.72	2.22	2.52	3.01
France	2.68	3.26	2.60	3.33	2.55	3.44	3.02	3.14	3.49	3.06	3.00
Bel-Luxembourg	2.29	2.76	2.11	2.41	1.96	3.03	2.91	2.76	3.57	2.65	2.94
Italy	1.00	1.00	1.00	2.00	2.50	2.20	3.00	2.67	3.00	3.00	2.80
Ireland	2.00	2.00	2.00	0.00	1.00	2.50	2.17	1.91	2.43	2.44	2.44
Norway	0.00	1.00	1.00	1.67	1.67	2.25	1.50	2.29	2.25	2.25	2.25
Spain	1.80	1.67	1.29	1.63	2.11	1.73	1.57	1.83	1.29	1.43	1.57
Austria	1.25	1.38	0.56	0.68	0.69	1.10	1.11	1.11	1.25	1.25	1.25
Switzerland	1.50	2.00	2.50	2.40	2.40	2.83	3.00	2.70	2.83	2.72	2.74
	2.58	2.62	2.62	2.85	2.29	3.07	2.44	2.88	2.94	2.59	2.65
<i>Eastern Europe</i>											
Czechoslovakia	1.56	2.00	1.78	1.71	1.98	2.03	1.91	2.15	2.16	2.21	2.16
Poland	1.46	2.35	2.11	1.84	2.66	2.66	2.44	2.53	2.63	2.92	2.70
East Germany	1.29	1.79	1.79	1.68	2.24	2.30	2.30	2.52	2.39	2.55	2.66
Yugoslavia	1.78	2.48	2.28	2.55	2.10	2.28	2.63	2.50	2.76	2.84	2.57
Hungary	2.21	2.13	2.10	1.80	2.24	2.21	2.00	2.34	2.44	2.19	2.21
Romania	1.24	1.92	1.36	1.47	1.79	1.61	1.52	2.07	1.94	2.00	1.90
Chile	1.38	1.36	1.08	0.93	0.88	1.14	0.59	0.95	0.81	0.75	0.95
Japan	1.46	1.13	1.20	1.00	1.00	1.58	1.64	1.66	2.05	1.85	2.11
Sweden	1.67	2.00	2.00	2.00	1.50	1.00	1.50	2.00	2.00	2.00	2.00
Korea, Republic of	1.70	1.66	1.71	1.93	1.98	1.99	1.91	1.88	1.52	1.71	2.11
Finland	2.25	1.93	2.00	1.82	1.43	1.67	1.75	1.75	1.60	2.00	1.75
Australia	1.50	1.60	1.23	1.50	1.66	1.43	1.62	1.85	1.11	1.44	1.49
China	0.98	0.71	0.94	0.58	0.94	0.77	1.17	1.17	1.23	1.20	1.25
Canada	0.87	0.84	1.07	1.37	1.25	1.12	1.11	1.26	1.43	1.44	1.49
Brazil	1.00	1.19	1.32	1.25	1.25	1.12	1.11	1.11	1.26	1.17	1.05
Colombia	0.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turkey	1.54	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Morocco	0.00	0.00	0.00	0.00	4.00	5.00	1.00	1.00	1.00	0.50	1.00
USSR	0.73	0.70	0.49	0.47	0.48	0.51	0.60	0.76	0.73	0.69	0.88
India	0.41	0.49	0.54	0.67	0.58	0.67	0.67	0.77	0.70	0.75	0.79
Pakistan	0.60	0.60	0.62	0.64	0.69	0.67	0.71	0.70	0.76	0.75	0.78
Bangladesh	0.61	0.61	0.64	0.65	0.70	0.74	0.71	0.67	0.70	0.69	0.70
Ethiopia	0.40	0.42	0.42	0.41	0.44	0.38	0.49	0.49	0.38	0.44	0.44
Argentina	0.77	0.71	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mexico	1.00	1.00	1.00	0.50	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Taiwan	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.50	1.00	0.00
<i>World Average 1/</i>	1.11	1.38	1.29	1.51	1.36	1.59	1.60	1.66	1.84	1.60	1.70

1/ Weighted average relative to production by individual countries.

March 1990

Foreign Production Estimates Division, FAS, USDA

## WORLD LIVESTOCK AND MEAT PRODUCTION

World red meat production for 1990 is now forecast at 114.6 million tons up slightly from the September projection but still below the 1989 output. Since September, beef production has been revised upward. Forecasts of pork and sheep and goat meat output are essentially unchanged. At the start of 1990, cattle numbers are estimated at 1,033 million head, down nearly 2 million from September and only slightly above the 1989 level. World hog numbers are estimated at 762 million head, up nearly 20 million from September and about 1 percent above 1989. The estimate of world sheep numbers, at 930 million head is down by 9 million head from September but still 2 percent above 1989.

	<u>World Red Meat Production</u> (Million tons)				
	1987	1988	1989	Sept. 1990	Mar. 1990
Beef and veal	45.0	45.5	45.6	45.2	45.9
Pork	59.1	62.3	63.4	62.7	62.7
Sheep and goat meat	5.6	5.8	5.9	6.0	6.0
Total	109.7	113.6	114.9	113.9	114.6

Note: These totals are comprised of current data for a number of countries combined with September 1989 estimates for others.

Forecast 1990 beef and veal production for the countries reviewed is up 2 percent from the September estimates and almost 1 percent above last year. The 1990 beef and veal production forecast for the United States, at 10.8 million tons, is up 2 percent from September and 1 percent from 1989. An increase in the number of cattle expected to move through feedlots and heavier slaughter weights caused the higher U. S. forecast. Forecast Canadian production is above September estimates, reflecting a likely increase in slaughter due to lower slaughter cattle exports to the United States and an increase in slaughter weights.

In Brazil, beef production for 1990 is now projected to reach 2.6 million tons, compared to 2.5 million forecast last September due to higher carcass weights and increased slaughter. A record 500,000 cattle were put in feed lots in 1989, and the additional supply of fed beef reduced the beef shortages and higher prices that usually occur at the end of dry season. Argentina's 1989 beef production was revised up 3 percent because dry weather caused some herd liquidation. Production in 1990 is projected above September based on expectations that the new Government will reduce taxes and controls on exports.

Production in the larger EC beef-producing countries has generally been revised upward since September, with the largest change in France (up 6 percent). Even so, France's production is only expected to match 1989's, which in turn was down from 1988. In France, like most of the EC, dairy policy rather than beef prices is the major determinant of beef production trends. Forecast beef production in Poland is down from September but still well above 1989 as low prices, rising costs, and problems in the dairy sector encourage cow slaughter.

In Australia, 1989 beef production has been revised upward because of dry weather and favorable export prices. Favorable export prices are expected to continue encouraging further increases in 1990 production.

Pork production in the 26 countries reviewed is down slightly from September and down nearly 2 percent from 1989 due mainly to a revision in Chinese production. Forecast U.S. production is down from the September estimate, reflecting lower inventories at the start of the year. In Canada, favorable pork prices are forecast to raise 1990 production above the September estimate. Output in the United States and Canada is forecast below the 1989 levels. In Brazil, 1990 production is not expected to be up as much as previously forecast, because a 21-percent cut in inflation-adjusted prices last year has discouraged producers.

In the EC, pork production prospects have not changed much since September. Italy and the Netherlands represent exceptions in that the current forecasts call for production at 1989 levels. In September, declines were forecast. In Yugoslavia and Poland, unfavorable producer prices have caused production forecasts to drop from those published last September.

In Japan, pork production is projected to increase above earlier estimates despite low hog prices as larger, more modern farms with low production costs continue to expand. After better than expected results in 1989, China's 1990 production is forecast to fall from the September estimate as a result of less favorable pork prices and continuing feed supply problems.

Sheep meat production for 1990 in the countries reviewed is down slightly from the projected September level and is less than 1 percent above 1989. The decline from September is largely due to a drop in production in China, where a sharp increase had been forecast. Production in the USSR is now forecast to remain at the 1989 level rather than decline as suggested in September. Current production forecasts for Australia and New Zealand are essentially unchanged from those of September, although both countries entered the year with sheep numbers slightly higher than expected. In Australia, the grower-funded price support system for wool encouraged maintaining flocks despite falling wool prices while New Zealand started the year with very good pasture conditions.

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TABLE 12

LAMB, MUTTON, GOAT MEAT PRODUCTION 1/  
(1,000 METRIC TONS CARCASS-WEIGHT-EQUIVALENT)

SELECTED PRODUCERS	1987	1988	1989 2/	Forecast Sept.	1990 March
MEXICO	73	73	75	76	76
UNITED STATES	143	152	157	152	164
ARGENTINA	82	87	90	90	92
URUGUAY	63	73	74	74	74
BELGIUM/LUXEMBOURG	7	7	7	7	7
DENMARK	1	1	2	2	2
FRANCE	157	153	150	148	148
GERMANY, FED. REP.	29	30	31	31	31
IRELAND	48	49	63	65	78
ITALY	68	76	79	70	80
NETHERLANDS	10	12	13	13	13
SPAIN	225	231	221	252	250
UNITED KINGDOM	297	321	365	346	345
BULGARIA	98	89	83	110	82
GERMANY, DEM. REP.	19	19	18	18	18
POLAND	29	25	21	21	21
YUGOSLAVIA	65	70	66	63	63
U.S.S.R.	905	1,000	1,000	955	=1,000
CHINA	719	802	880	990	910
KOREA, SOUTH	0	1	1	0	1
AUSTRALIA	591	549	553	600	597
NEW ZEALAND	583	576	574	500	500
SUBTOTAL	4,212	4,396	4,523	4,583	4,552
Others	1,350	1,385	1,422	1,451	1,451 3/
TOTAL	5,562	5,781	5,945	6,034	6,003

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. Totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Countries with no revisions since the September release.

TABLE 13

SHEEP INVENTORIES 1/  
(THOUSAND HEAD JANUARY 1)

SELECTED PRODUCERS	1987	1988	1989 2/	Forecast Sept.	1990 March
UNITED STATES	10,334	10,784	10,802	10,500	10,500
ARGENTINA	28,998	29,202	29,345	29,365	29,365
URUGUAY	25,707	27,365	28,420	28,420	28,420
BELGIUM/LUXEMBOURG	149	160	164	170	170
DENMARK	70	73	86	100	100
FRANCE	10,580	10,360	10,150	10,000	10,000
GERMANY, FED. REP.	1,383	1,414	1,464	1,450	1,500
IRELAND	2,917	4,301	4,991	5,834	5,834
ITALY	11,451	11,457	11,623	11,455	11,650
NETHERLANDS	985	1,169	1,405	1,225	1,400
SPAIN	17,600	20,310	23,797	24,450	26,400
UNITED KINGDOM	25,976	27,820	29,045	30,000	30,000
BULGARIA	9,563	8,886	8,300	8,700	8,200
GERMANY, DEM. REP.	2,647	2,656	2,634	2,640	2,640
POLAND	4,300	4,075	3,852	3,800	3,800
YUGOSLAVIA	7,819	7,824	7,564	7,369	7,304
U.S.S.R.	142,210	140,783	140,684	140,700	137,600
CHINA 3/	166,220	180,340	201,530	221,700	211,000
AUSTRALIA	158,800	162,500	174,000	183,300	185,600
NEW ZEALAND	69,204	64,244	64,436	60,860	61,502
SUBTOTAL	696,913	715,723	754,292	782,038	772,985
Others	165,589	158,989	157,574	157,144	157,144 4/
TOTAL	862,502	874,712	911,866	939,182	930,129

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. Totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Includes Goats In China.  
 4/ Countries with no revisions since the September release.

TABLE 14

PORK PRODUCTION 1/  
(1,000 METRIC TONS CARCASS-WEIGHT-EQUIVALENT)

SELECTED PRODUCERS	1987	1988	1989 2/	Forecast Sept.	1990 March
CANADA	1,131	1,188	1,180	1,115	1,140
MEXICO	950	964	942	590	773
UNITED STATES	6,520	7,114	7,176	7,150	7,070
BRAZIL	1,200	1,100	1,000	1,150	1,100
BELGIUM/LUXEMBOURG	788	813	815	805	825
DENMARK	1,149	1,168	1,160	1,220	1,180
FRANCE	1,536	1,599	1,610	1,610	1,610
GERMANY, FED. REP.	2,856	2,838	2,695	2,720	2,720
IRELAND	141	144	143	143	145
ITALY	1,190	1,269	1,276	1,195	1,280
NETHERLANDS	1,524	1,632	1,632	1,530	1,630
SPAIN	1,489	1,722	1,720	1,740	1,730
UNITED KINGDOM	1,025	1,048	988	1,021	1,005
BULGARIA	416	404	418	450	419
GERMANY, DEM. REP.	1,483	1,414	1,436	1,390	1,324
POLAND	1,745	1,845	1,748	1,685	1,536
YUGOSLAVIA	871	819	760	770	730
U.S.S.R.	6,324	6,600	6,650	6,650	6,700
CHINA	18,349	20,176	21,375	21,160	21,000
HONG KONG	30	34	30	33	28
KOREA, SOUTH	376	433	480	485	522
JAPAN	1,581	1,578	1,625	1,575	1,635
TAIWAN	938	911	920	910	945
AUSTRALIA	283	298	302	304	304
NEW ZEALAND	44	43	46	43	43
SUBTOTAL	53,939	57,154	58,127	57,444	57,394
Others	5,155	5,170	5,253	5,268	5,268 3/
TOTAL	59,094	62,324	63,380	62,712	62,662

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. Totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Countries with no revisions since the September release.

TABLE 15

HOG INVENTORIES 1/  
(THOUSAND HEAD JANUARY 1)

SELECTED PRODUCERS	1987	1988	1989 2/	Forecast	1990
				Sept.	March
CANADA	9,996	10,748	11,018	10,650	10,650
MEXICO	12,357	10,879	9,003	8,283	8,283
UNITED STATES	50,920	54,384	55,469	55,713	53,852
BRAZIL	31,700	31,700	33,200	32,700	32,700
BELGIUM/LUXEMBOURG	5,838	5,958	6,234	6,150	6,250
DENMARK	9,422	9,048	9,105	9,275	9,535
FRANCE	12,063	11,915	11,866	11,601	11,601
GERMANY, FED. REP.	24,503	23,670	22,589	22,888	22,414
IRELAND	980	960	961	960	960
ITALY	9,278	9,383	9,360	9,450	9,350
NETHERLANDS	14,063	14,226	13,820	13,700	14,200
SPAIN	15,782	16,941	16,100	16,300	16,200
UNITED KINGDOM	7,955	7,915	7,628	7,600	7,700
BULGARIA	4,050	4,034	4,134	4,075	4,140
GERMANY, DEM. REP.	12,840	12,503	12,464	12,152	12,152
POLAND	19,619	19,373	20,169	19,362	18,700
YUGOSLAVIA	8,459	8,324	7,396	7,351	6,966
U.S.S.R.	79,501	77,403	78,143	78,500	78,900
CHINA	337,191	327,730	342,220	332,000	352,000
KOREA, SOUTH	3,347	4,281	4,852	5,000	5,300
JAPAN	11,354	11,725	11,866	11,880	11,880
TAIWAN	7,057	7,129	6,954	6,900	7,780
AUSTRALIA	2,640	2,719	2,650	2,710	2,710
NEW ZEALAND	435	426	414	395	395
SUBTOTAL	691,350	683,374	697,615	685,595	704,618
Others	57,159	58,074	58,307	56,940	56,940 3/
TOTAL	748,509	741,448	755,922	742,535	761,558

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. Totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Countries with no revisions since the September release.

TABLE 16

BEEF AND VEAL PRODUCTION 1/  
(1,000 METRIC TONS CARCASS-WEIGHT-EQUIVALENT)

SELECTED PRODUCERS	1987	1988	1989 2/	Forecast Sept.	1990 March
CANADA	977	973	985	945	1,015
MEXICO	1,205	1,754	2,140	1,904	1,904
UNITED STATES	10,884	10,880	10,665	10,591	10,793
EL SALVADOR	20	23	23	23	23
ARGENTINA	2,700	2,610	2,600	2,440	2,500
BRAZIL	2,250	2,500	2,400	2,500	2,600
URUGUAY	277	321	347	265	315
BELGIUM/LUXEMBOURG	327	323	315	337	320
DENMARK	235	217	204	202	200
FRANCE	1,912	1,780	1,670	1,580	1,670
GERMANY, FED. REP.	1,680	1,609	1,595	1,585	1,610
IRELAND	484	459	412	454	458
ITALY	1,205	1,164	1,150	1,125	1,145
NETHERLANDS	535	506	478	480	460
SPAIN	449	450	446	466	447
UNITED KINGDOM	1,088	945	990	965	1,000
BULGARIA	133	131	125	165	123
GERMANY, DEM. REP.	491	470	465	466	466
POLAND	835	783	702	835	799
YUGOSLAVIA	317	301	290	280	280
U.S.S.R.	8,288	8,600	8,750	8,600	8,800
CHINA	792	958	1,025	1,090	1,100
KOREA, SOUTH	206	175	120	110	119
JAPAN	565	569	540	565	545
TAIWAN	4	5	6	6	6
AUSTRALIA	1,549	1,533	1,485	1,545	1,562
NEW ZEALAND	563	562	550	487	487
SUBTOTAL	39,971	40,601	40,478	40,011	40,747
Others	5,022	4,865	5,084	5,166	5,166 3/
TOTAL	44,993	45,466	45,562	45,177	45,913

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. Totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Countries with no revisions since the September release.

TABLE 17

CATTLE AND BUFFALO INVENTORIES 1/  
(THOUSAND HEAD JANUARY 1)

SELECTED PRODUCERS	1987	1988	1989 2/	Forecast Sept.	1990 March
CANADA	10,802	10,863	10,994	11,100	11,125
MEXICO	33,603	35,378	34,999	31,931	31,931
UNITED STATES	102,118	99,622	99,180	99,891	99,337
EL SALVADOR	1,024	1,101	1,162	1,162	1,204
ARGENTINA	51,683	50,782	50,782	50,081	50,581
BRAZIL	97,030	98,335	98,340	100,300	100,300
URUGUAY	9,778	10,306	10,548	9,072	9,443
BELGIUM/LUXEMBOURG	3,146	3,159	3,184	3,210	3,250
DENMARK	2,490	2,323	2,226	2,170	2,190
FRANCE	22,171	21,052	19,609	18,761	18,761
GERMANY, FED. REP.	15,305	14,887	14,659	14,629	14,616
IRELAND	5,626	5,580	5,637	5,796	5,796
ITALY	8,921	8,898	8,843	8,830	8,820
NETHERLANDS	4,922	4,546	4,606	4,550	4,650
SPAIN	5,003	5,094	5,052	5,110	5,050
UNITED KINGDOM	12,476	11,849	11,902	12,000	11,950
BULGARIA	1,705	1,673	1,638	1,640	1,623
GERMANY, DEM. REP.	5,804	5,721	5,710	5,720	5,720
POLAND	10,522	10,200	10,100	10,250	10,300
YUGOSLAVIA	5,030	4,881	4,759	4,677	4,639
U.S.S.R.	122,103	120,592	119,580	120,200	118,300
CHINA	91,670	94,650	97,950	101,380	101,380
KOREA, SOUTH	2,807	2,386	2,039	1,950	2,005
JAPAN	4,694	4,667	4,682	4,750	4,770
TAIWAN	153	172	176	179	179
AUSTRALIA	23,540	23,469	24,200	25,250	24,900
NEW ZEALAND	8,279	7,999	8,057	7,713	7,721
SUBTOTAL	662,405	660,185	660,614	662,302	660,541
Others	375,522	365,929	369,154	372,507	372,507 <u>3/</u>
TOTAL	1,037,927	1,026,114	1,029,768	1,034,809	1,033,048

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. Totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Countries with no revisions since the September release.

## WORLD COCOA PRODUCTION

World cocoa bean production for 1989/90 (October-September) is estimated at 2.39 million tons, 1 percent less than last year's revised record outturn but 1 percent above the October 1989 forecast. All regions are showing increases over the previous season except Africa. World cocoa production in 1989/90 is estimated 21 percent above that produced 5 years ago. This increase has taken place in all regions of the world except South America, which is down 14 percent from the 1984/85 season. The most significant expansion has taken place in Asia, where production has more than doubled in 5 years. At the world level, the influence of new cocoa tree plantings continues to be the major reason for the increased output during the last 5 years.

In Africa, cocoa production for 1989/90 is forecast up 27 percent from the level of 1984/85. In Cote d'Ivoire, the world's largest producer, the forecast of 750,000 tons is down 10 percent from the record level of a year ago but unchanged from the October forecast. The reduction from a year ago is, in part, a result of the 50 percent cut in the government producer price at the beginning of the 1989/90 marketing year. The 1988/89 outturn was revised upward due to favorable weather during the season and more trees attaining maximum yielding age. In Ghana, the forecast for 1989/90 is 290,000 tons, down 4 percent from last season and but up 5 percent from the October number. The sharp cut in cocoa prices in neighboring Cote d'Ivoire is likely to eliminate much of the incentive for cross-border movement of cocoa out of Ghana. In Nigeria, the forecast of 165,000 tons is 10 percent more than last year and 14 percent more than earlier forecast. Although investment in new plantations seems to be quite limited, the higher producer prices between 1986/87 and 1988/89 encouraged farmers to continue to improve management of existing plantations, leading to steady increases in production. However, the recent fall in cocoa prices will likely decrease incentives to invest in new plantations and reduce incentives to hire labor and buy chemicals to maintain existing plantations. In spite of collapsing world cocoa prices, cocoa producer prices in Nigeria reached 24,000 naira (7.8 naira = 1 dollar) per ton in early 1989, a level well above world prices. The price fell as low as 4,000 naira per ton by the end 1989 and then moved up to 6,000 naira in January 1990.

South America's 1989/90 cocoa production is forecast at 520,000 tons, up 6 percent from last year and 2 percent more than forecast in October. This region has shown a 14-percent decrease in production since 1984/85, with all major countries showing decreases except for Colombia where production is up by 43 percent. Brazil, the world's second largest producer, has reduced outturn 13 percent during the past 5 years. For Brazil, however, the forecast for the 1989/90 crop of 360,000 tons is up 8 percent (26,000 tons) from last season and 10,000 tons above the October forecast. Even though the outlook is for some increase, the spread of witch's broom fungus in two of Bahia's large cocoa producing areas, Urucuca and Camaca, coupled with lack of proper grower control, is causing serious concern to farmers in neighboring cocoa areas. The Bahia main crop is estimated at 174,000 tons, the Temporao at 150,000, and other production is estimated at 36,000 tons. In Ecuador, the forecast of 78,000 tons is down 2 percent from last year though unchanged from October. Ecuador's cocoa production continues to trend downward in response to depressed world prices. Producers are reportedly taking land out of cocoa production in favor of more remunerative crops such as bananas and soybeans.

The central America/Caribbean cocoa production for 1989/90 is forecast at 111.2 thousand tons, 6 percent above a year ago but down 1 percent from the October forecast. Of the world regions showing increased cocoa production during the last 5 years, this region has shown the smallest gain of only 8 percent. Virtually all the region's increase over the past 5 years is accounted for by the Dominican Republic, up 20 percent and Mexico, up 7 percent. In the Dominican Republic, the forecast is 47,000 tons, up 7 percent from last season's revised harvest but 6 percent less than forecast in October. The forecast for the 1989/90 season was lowered from the October level as small producers are expected to continue to leave their crop unharvested because of the low domestic price for cocoa.

Asia/Oceania cocoa production for 1989/90 is forecast to increase 11 percent over last year, but the forecast is down 6 percent from October. The most pronounced increase during the past 5 years has taken place in this region, where output has expanded by more than 200,000 tons. In Malaysia, largest producer in this region, the forecast of 245,000 tons is up 9 percent from last year but down 11 percent from the October forecast. Favorable weather and the expansion resulting from cocoa trees reaching full maturity will enable all three major producing areas to produce more cocoa beans in 1989/90 despite rumors of a further sharp reduction in Sabah, the largest producing area. However, low cocoa prices have forced a reduction in fertilizer use, which has resulted in smaller bean size. The financial squeeze has also caused cutbacks in labor which may have a negative impact on harvesting. Both factors are expected to contribute to lower potential yields. The forecast for Indonesia of 75,000 tons is up 25 percent from last year and unchanged from October.

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TABLE 18

COCOA BEAN PRODUCTION, SELECTED COUNTRIES 1/  
(1,000 METRIC TONS)

	1984/85	1985/86	1986/87	1987/88	1988/89	FORECAST 1989/90 OCT.	1989/90 MAR.
Costa Rica	4.0	3.9	3.8	3.9	4.1	4.2	4.2
Cuba	3.0	2.0	2.1	2.1	2.1	2.1	2.1
Dominican Republic	39.2	39.0	45.2	50.0	44.0	50.0	47.0
Grenada	2.2	1.7	2.0	2.0	2.0	2.0	2.0
Guatemala	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Haiti	3.8	3.0	3.0	3.0	3.0	3.0	3.0
Honduras	1.5	1.9	1.8	1.9	2.0	2.0	2.0
Jamaica & Dep	2.6	2.4	2.6	2.4	1.5	1.5	1.5
Mexico	42.1	39.2	37.9	47.5	42.0	43.0	45.0
Nicaragua	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Panama	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Trinidad and Tobago	1.4	1.3	1.6	1.8	1.4	1.5	1.5
Other 2/	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NORTH AND CENTRAL AMERICA AND CARIBBEAN	102.6	97.3	102.9	117.5	105.0	112.2	111.2
Bolivia	415.0	380.0	365.0	400.0	334.0	350.0	360.0
Brazil	42.0	45.6	52.0	53.8	56.0	60.0	60.0
Colombia	128.0	112.0	77.0	76.0	80.0	78.0	78.0
Ecuador	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Peru	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Surinam	10.5	11.2	13.9	12.5	10.2	9.5	9.5
Venezuela	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SOUTH AMERICA	608.1	561.4	520.5	554.9	492.8	510.1	520.1
Angola	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cameroon	120.0	119.0	123.0	133.0	124.0	120.0	120.0
Comoro Islands	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Congo	1.6	1.2	1.0	1.2	1.0	1.0	1.0
Cote d' Ivoire 3/	565.0	555.1	610.7	673.9	836.4	750.0	750.0
Equatorial Guinea	9.0	9.0	7.0	8.3	8.0	8.0	8.0
Gabon	1.5	1.8	1.7	1.6	1.8	1.8	1.8
Ghana	175.0	219.0	228.0	187.0	301.0	275.0	290.0
Liberia	6.3	4.3	2.3	3.3	4.0	4.0	4.0
Madagascar	1.8	2.0	2.9	2.2	2.5	2.5	2.5
Nigeria 4/	170.0	130.0	100.0	145.0	150.0	140.0	165.0
Sao Tome and Princip	2.8	3.4	2.2	4.5	4.0	4.0	4.0
Sierra Leone	10.9	9.1	8.4	9.0	7.6	9.0	8.0
Tanzania	1.5	0.7	1.4	1.6	1.5	1.5	1.5
Togo 3/	7.0	12.8	15.7	12.0	10.0	12.0	12.0
Uganda	0.3	0.2	0.4	0.2	0.3	0.3	0.3
Zaire	4.5	5.0	5.0	5.0	5.0	5.0	5.0
AFRICA	1,077.5	1,072.9	1,110.0	1,188.1	1,457.4	1,334.4	1,373.4
Fiji	0.2	0.3	0.3	0.3	0.3	0.3	0.3
India	5.0	6.0	6.0	6.0	6.0	6.0	6.0
Indonesia	32.4	34.3	39.0	45.0	60.0	75.0	75.0
Malaysia	100.0	130.0	167.0	227.0	225.0	275.0	245.0
Papua New Guinea	30.8	32.7	34.0	35.0	40.0	35.0	40.0
Philippines	6.0	6.5	6.6	7.2	7.8	7.0	9.0
Solomon Islands	1.2	1.3	2.0	2.5	2.6	2.7	2.7
Sri Lanka	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Vanuatu/New Hebrides	0.6	1.2	1.1	0.8	1.0	1.0	1.0
Western Samoa	0.7	0.8	0.5	0.7	0.5	0.5	0.5
ASIA AND OCEANIA	178.4	214.6	258.0	326.0	344.7	404.0	381.0
WORLD	1,966.6	1,946.3	1,991.4	2,186.5	2,399.9	2,360.7	2,385.7

1/ Estimates refer to an October-September crop year. 2/ Includes Dominica, St. Lucia, Guadeloupe, and Martinique. 3/ Includes some cocoa marketed from Ghana. 4/ Includes cocoa marketed through Benin.

## BRAZILIAN SOYBEAN PRODUCTION AND FIELD TRIP REPORT

Area planted to soybeans this year in Brazil is estimated below last year's record level. Overall weather conditions have been favorable for summer crop development in most major growing regions. Therefore, in spite of the reduction in input use, yields are currently expected to be at or above the 5-year average. Brazil is forecast to achieve production of 20.5 million tons, second only to last year's 23.0-million-ton bumper crop.

### BACKGROUND

Brazilian soybean producers were faced with several major financial constraints at the outset of this year's planting season. There was a shortage of rural credit. Credit for planting was available at high cost, and there was a delay in the release of credit. Many farmers received financing for the October through December planting season in December or January. In addition, input costs, transportation costs (especially in the center-west region), and taxes (including port taxes, state taxes, and input taxes) increased significantly. Farmers responded to the increased production costs by reducing planted area and cutting back on the use of inputs. In an attempt to obtain financing in time to plant within an ideal planting window, many producers forward contracted a percentage of their 1990 soybean production with co-ops or crushers in exchange for financing or in some cases for seed, fertilizer, and lime. An estimated 1 to 2 million tons of soybeans have been placed under contract.

### PROJECTED SOYBEAN AREA, YIELD AND PRODUCTION

Brazil's four major soybean producing states, Parana, Rio Grande do Sul, Mato Grosso, and Mato Grosso do Sul, account for approximately 75 percent of total soybean production.

### 1989/90 SOYBEAN PROFILE BY STATE 1/

<u>STATE</u>	<u>AREA</u> (1,000 HA)	<u>YIELD</u> (TONS/HA)	<u>PRODUCTION</u> (1,000 MT)
PARANA	2,300	2,141	4,925
RIO GRANDE DO SUL	3,550	1,528	5,425
MATO GROSSO	1,350	2,007	2,710
MATO GROSSO DO SUL	1,250	1,904	2,380
GOIAS (INC TOCANTINS)	900	1,900	1,710
SAO PAULO	560	1,982	1,110
MINAS GERAIS	530	1,934	1,025
SANTA CATARINA	415	1,349	560
OTHER	445	1,597	655
TOTAL	11,300	1,814	20,500

1/ State estimates are not official USDA estimates.

## PROJECTED DECLINE IN SOYBEAN AREA

Soybean area is estimated at 11.3 million hectares, down 7 percent from last year's record level of 12.2 million hectares. Farmers in most growing regions responded to the credit problems encountered at planting by reducing soybean planted area. In the center-west region (Mato Grosso, Mato Grosso do Sul, and Goias), producers faced additional concerns because of skyrocketing transportation costs. Virtually all soybeans grown in the center-west are transported to southern ports by truck.

Also, many farmers north of Cuiaba, Mato Grosso, have doubled the level of cultivated land under production annually for the past several years. Due to the expense of land clearing, these farmers lacked available funds at the outset of the season. In many cases, credit was delayed until mid-January, causing farmers to plant as late as the last week in January.

### REGIONAL SOYBEAN AREA FOR 1988/89 AND 1989/90 1/

<u>STATE</u>	<u>1988/89 AREA (HA)</u>	<u>1989/90 AREA (HA)</u>	<u>VARIATION (%)</u>
<b>CENTER-SOUTH:</b>			
MATO GROSSO	1,704	1,350	- 21
MATO GROSSO DO SUL	1,298	1,250	- 4
GOIAS (INC TOCANTINS)	950	900	- 5
<b>SOUTH-EAST:</b>			
SAO PAULO	593	560	- 6
MINAS GERAIS	591	530	- 10
<b>SOUTH:</b>			
PARANA	2,402	2,300	- 4
RIO GRANDE DO SUL	3,669	3,550	- 3
SANTA CATARINA	436	415	- 5

1/ State estimates are not official USDA estimates.

In Brazil's south (Parana, Santa Cantarina, and Rio Grande do Sul) and center-south (Minas Gerais and Sao Paulo) growing regions, some producers opted to plant corn or cotton in place of soybeans. Many producers put land into pasture instead of planting soybeans. In the remote growing regions of northern Mato Grosso, producers left large land areas idle. In some cases, fields were prepared but not planted.

## 1989/90 CROP CONDITION ASSESSMENT

Foreign Agricultural Service personnel traveled through major soybean producing regions in Mato Grosso, Mato Grosso do Sul, and Rio Grande do Sul during January. Discussions with Government and private industry agronomists and economists revealed the following information.

MATO GROSSO DO SUL - Soybean planted area is estimated to decline 4 percent in Mato Grosso do Sul this season. The decline is primarily due to reductions in area in the northern portion of the state. North of Campo Grande, soybean area is estimated to decline by 10-25 percent. Many producers in this area planted corn or put soybean land into pasture. Farmers in this area also reported lower input use and the use of other than certified seed. The soils are chemically poor, acidic, and slightly sandy. Farmers achieve desirable yields through proper soil maintenance and lime applications. The large producers in this area are in relatively stable condition financially but still contend with high freight costs.

In the southern portion of the state, near Ponta Pora, farmers have been less impacted by financial constraints. Farmers in this region experienced credit problems at the outset of the season but are generally more secure financially. They produce a winter grain crop and can sell soybeans across the border to Paraguay. They were able to sustain planted area and plant on time. Fertilizer applications were reduced, however, soils in this region are naturally fertile and have been well maintained and overall weather conditions have been favorable so far this season. Therefore, yields are not expected to experience a significant decline this year. There is some concern, however, regarding the long-range effects of having applied reduced levels of fertilizer.

MATO GROSSO - Conditions in Mato Grosso vary within the state. In the southern portion of the state (near Rondonopolis), planting was delayed first because of credit problems, then later due to dry conditions. Very little previously planted soybean area was left unplanted. Area reductions are estimated between 3-5 percent for the southern growing region. Yields in the south are expected to be lower as well. Due to late financing, farmers obtained supplies (seed, fertilizer, pesticides, etc.) late or not in the usual quantities.

North of Cuiaba, seasonal rains started in October, but farmers lacked the credit necessary to finance planting. Excessive rains in December further delayed planting. Farmers in this area were still planting in late January. Northern farmers are especially vulnerable to financing restrictions because they expand into new land each year and lack capital. Reductions in the application of fertilizers and selective herbicides were common. Area reductions in this region are estimated to be as high as 20 to 30 percent. In some cases, farmers who rented land for soybean production last year did not rent land this year. Numerous fields previously planted with soybeans were left idle. Rice production is reportedly on the decline, as farmers increase the use of soybean varieties which are better suited for direct planting to new lands.

RIO GRANDE DO SUL - Rio Grande do Sul, Brazil's southernmost state, accounts for more soybean area than any other state. However, this region has some of the lowest soybean yields. Farmers do not face the problems associated with the high costs of transporting their crop to market. In addition, the smaller farms of the south qualify for lower interest rates on loans than their large farm-owning counterparts in the center-west. However, financing for this year's crop was released so late that southern farmers experienced the same delays at planting. An estimated 5 to 10 percent of the soybean crop was planted outside of the ideal planting window.

Conditions were dry early in the season, which impacted early-planted corn yields. Favorable rains arrived in time to benefit soybean crop development. As of the last week of January, the soybean crop was in the flowering to pod-filling stages. Many farmers made only minor reductions in soybean area and both farmers and farm cooperators contacts reported reduced applications of fertilizers, lime, and pesticides. However, favorable weather could lead to average or above-average yields in spite of the decrease in input use.

#### SOYBEAN OUTLOOK

The agricultural potential (in terms of climate and growing condition) in Brazil seems limitless. The factor currently limiting Brazil's agricultural productivity is its economic condition. Many farmers responded to the credit problems this season by seeking assistance from co-ops and private lending institutions. Farmers have reportedly contracted a portion of their 1990 corn production in exchange for seed, in addition to forward contracting soybeans. Many co-op managers anticipate that forward contracting crops for inputs, seed, or financing may become a common method for farmers to defray costs at planting.

Most producers expect President-elect Fernando Collor de Mello to initiate a major devaluation of the new cruzado when he takes office later this month. Although a devaluation between 50 and 100 percent is preferred by many farmers, most agree that a 30-percent devaluation is likely. The new president has indicated that addressing the issue of farm credit will be a priority with his administration.

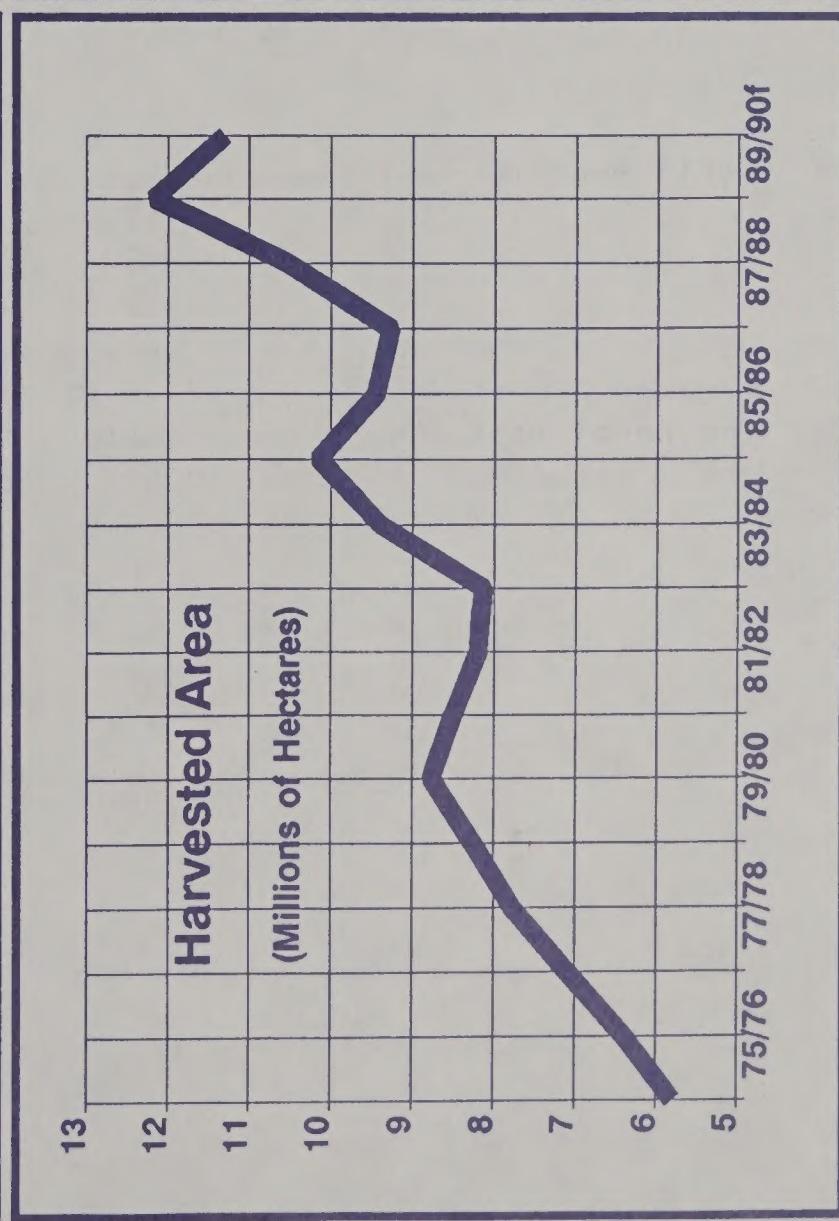
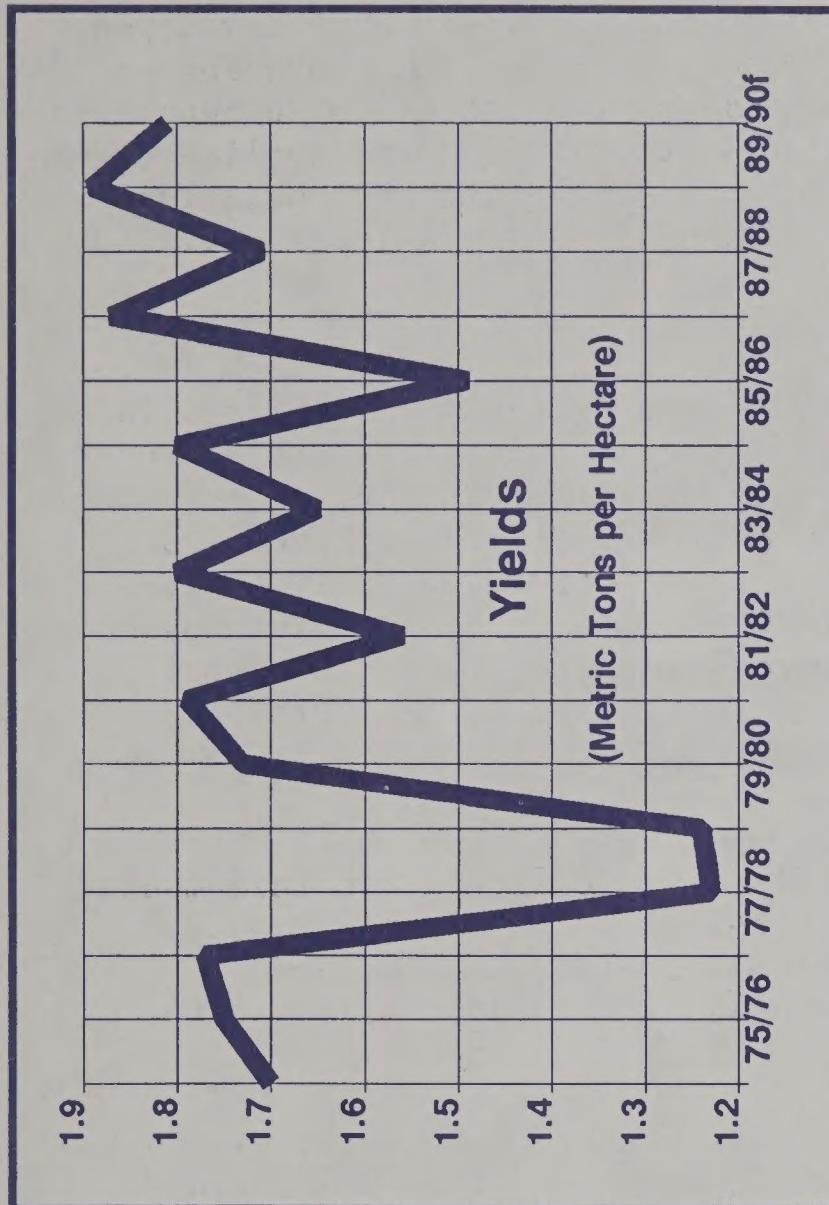
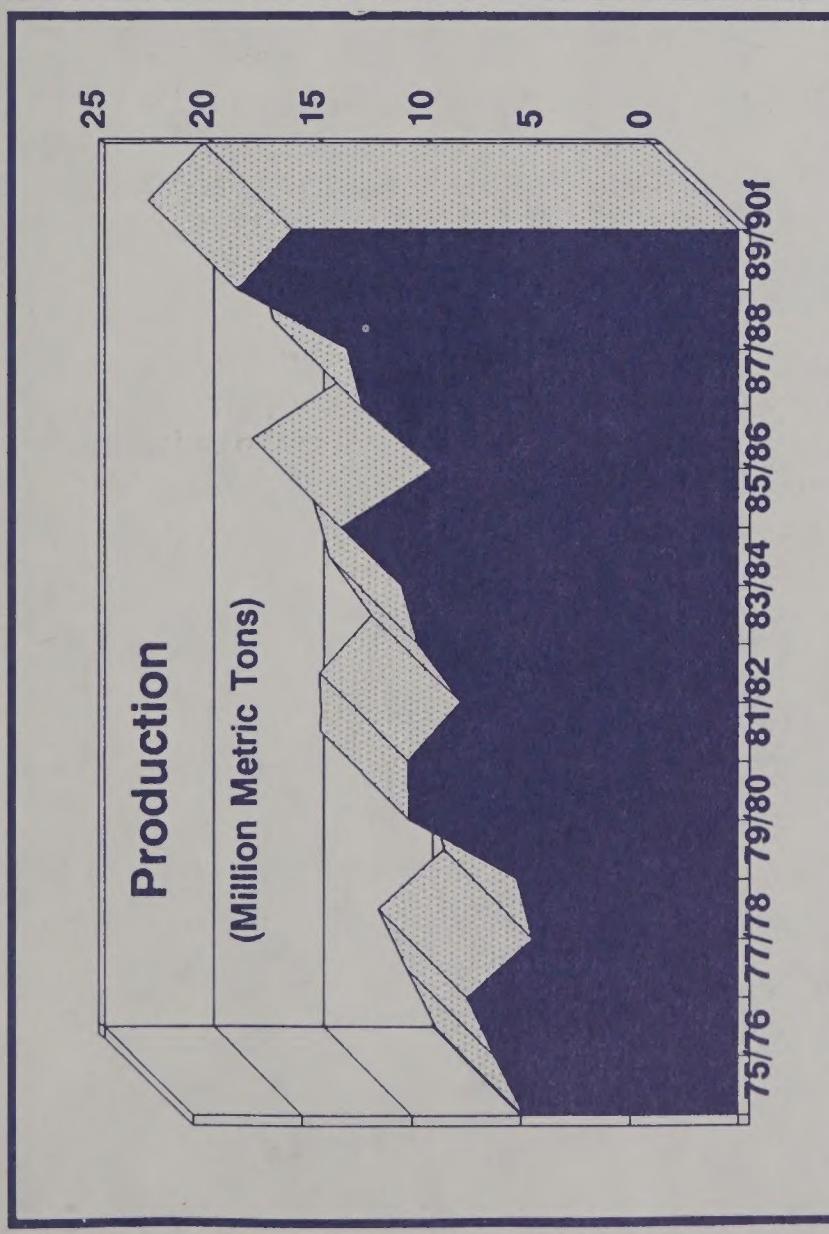
Transportation is a key issue for center-west farmers. Virtually all soybeans produced in Brazil are transported by truck. Brazil's highways are inadequate in providing access from primary growing regions to the ports in the south. The physical condition of the roads in the center-west has deteriorated to the extent that most major roads need significant repair.

The World Bank recently announced approval of a US\$310 million loan to help finance Brazil's US\$759 million highway project. Several contacts suggested that Brazil needs to develop highway systems leading to the Amazon or to Pacific ports (through Bolivia and Chile). Attention is currently being given to several transportation alternatives. Soybeans are presently being transported via river to Argentine ports. Last year a private company was granted permission by the Government to construct, operate, and maintain a 1,700 kilometer rail system linking Cuiaba, Mato Grosso to the east coast, referred to as the "soybean railroad."

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# Brazilian Soybeans Production, Area, and Yields



	<u>Production</u> (Million Tons and Hectares)	<u>Area</u>	<u>Yield</u> (Mt/Ha)
1984/85	18.28	10.15	1.80
1985/86	14.10	9.45	1.49
1986/87	17.30	9.27	1.87
1987/88	18.02	10.52	1.71
1988/89	23.00	12.17	1.89
1989/90f	20.50	11.30	1.81

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Table 19. Brazilian Oilseeds and Grains

	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
<b>AREA HARVESTED (1,000 hectares)</b>											
Soybean	8,774	8,501	8,202	8,136	9,421	10,153	9,450	9,270	10,524	12,170	11,300
Cottonseed 1/	1,980	2,015	2,080	2,113	1,975	2,420	2,175	2,165	2,553	2,227	2,350
Peanut	320	235	235	210	150	190	161	142	102	89	89
Sunflowerseed	20	20	39	5	3	3	3	3	4	12	4
Rapeseed	—	3	15	1	1	1	1	1	1	1	1
Corn	11,621	12,810	13,382	11,050	12,700	12,000	12,500	13,500	13,180	12,900	12,800
Rice, Milled	6,469	6,100	5,963	5,100	5,350	4,760	5,585	5,980	5,961	5,300	4,600
Wheat	3,832	3,062	1,922	2,828	1,900	1,750	2,800	3,900	3,475	3,450	3,300
Sorghum	74	92	109	130	150	160	199	245	196	230	230
Oats	77	77	90	94	100	120	142	130	140	119	135
Barley	74	74	96	167	121	73	110	103	102	104	120
Rye	12	12	24	5	4	4	13	5	3	2	3
Cotton 1/	1,975	2,015	2,070	2,113	1,960	2,420	2,290	2,165	2,156	2,367	2,350
<b>PRODUCTION (1,000 metric tons)</b>											
Soybean	15,156	15,200	12,835	14,750	15,541	18,278	14,100	17,300	18,021	23,000	20,500
Cottonseed	1,057	1,133	1,164	1,198	995	1,758	1,405	1,085	1,550	1,195	1,450
Peanut	545	310	305	250	220	337	216	195	170	156	130
Oil, Palm	13	17	18	18	21	22	24	24	25	54	70
Palm Kernel	—	—	10	9	10	11	12	12	12	14	18
Sunflowerseed	23	23	27	4	3	3	3	3	6	13	5
Rapeseed	—	3	12	1	1	1	1	1	1	1	1
Corn	20,214	22,555	22,932	19,500	21,000	22,000	21,000	28,500	24,790	26,050	24,500
Rice, Milled	9,638	8,638	9,155	7,800	9,000	9,000	9,816	10,578	11,800	11,000	9,400
Wheat	2,879	2,676	2,217	1,849	2,100	1,900	4,300	5,600	6,100	5,800	5,500
Sorghum	182	212	204	240	300	260	370	461	296	420	415
Barley	75	85	110	99	125	78	171	185	195	124	265
Oats	76	76	98	61	102	130	157	134	176	133	165
Rye	10	10	24	4	4	3	13	5	4	2	4
Cotton	579	622	645	650	556	963	830	655	765	735	762
<b>YIELD (metric tons per hectare)</b>											
Soybean	1.73	1.79	1.56	1.81	1.65	1.80	1.49	1.87	1.71	1.89	1.81
Peanut	1.70	1.32	1.30	1.19	1.47	1.77	1.34	1.37	1.67	1.75	1.46
Sunflowerseed	1.15	1.15	0.69	0.80	1.00	1.00	1.00	1.00	1.50	1.08	1.25
Rapeseed	—	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Cottonseed	0.53	0.56	0.56	0.57	0.50	0.73	0.65	0.50	0.61	0.54	0.62
Barley	1.01	1.15	1.15	0.59	1.03	1.07	1.55	1.80	1.91	1.19	2.21
Rice, Milled	1.49	1.42	1.54	1.53	1.68	1.89	1.76	1.77	1.98	2.08	2.04
Corn	1.74	1.76	1.71	1.76	1.65	1.83	1.68	1.96	1.88	2.02	1.91
Sorghum	2.46	2.30	1.87	1.85	2.00	1.63	1.86	1.88	1.51	1.83	1.80
Wheat	0.75	0.87	1.15	0.65	1.11	1.09	1.54	1.44	1.76	1.68	1.67
Rye	0.83	0.83	1.00	0.80	1.00	0.75	1.00	1.00	1.33	1.00	1.33
Oats	0.99	0.99	1.09	0.65	1.02	1.08	1.11	1.03	1.26	1.12	1.22
Cotton	0.29	0.31	0.31	0.31	0.28	0.40	0.36	0.30	0.35	0.31	0.32

1/ Cotton and cottonseed area are not comparable. Cotton area reflects the current center-south crop (harvested from April through July) combined with the previous northeast crop (harvested from July through December). Cottonseed area is derived using the center-south and northeast crop for the same year.